THis exquisite Treatise having been near 40 years detained in private hands, is now by the good hand of God made publike; it being the One, and only Copy of this Subject extant in the World: and it was by the incomparably learned Sir Christopher Heydon Knight, whose able Pen hath renuonsly vindicated Judicial Astrologie; as to day not any Antagonist durst encounter with unanswerable Arguments. In this Tractate every thing which all Antagonists cry out for, Where's the demonstration of the Art? is in this Book by undeniable Mathematical demonstrations so judiciously proved, that the most scrupulous may receive full satisfaction. I shall only add thus much, that We may herein adore the divine Providence of God, who so long since elevated the Conceptions of this learned Kt, to go on with, to perform and perfect so high and so sublime a piece of learning, and yet deferred its publication, until both the times, and mens minds (so were by his all-guiding hand made capable of its reception: The Work speaks its own merits, I am thine,

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8°. J. 86. Line.

AN *Astrological Discourse,*

Manifestly proving

The Powerful Influence of Planets and Fixed Stars upon Elementary Bodies, in Justification of the verity of ASTROLOGY.

Together with an

Astrological Judgment

UPON

The great Conjunction of *Saturn* and *Jupiter* 1603.

Both written by that truly honorable and learned Gentleman Sir CHRISTOPHER HEYDON Knight, and never till now made publike.

London, Printed by *John Macock*, for *Nathaniel Brooke* at the Angel in *Cornhill*. 1650.

BIBLIOTHECA·BODLEIANA·

To the Reader.

RICHARD FORSTER, Doctor in Phyſick, one of the Colledg of Phyſicians in London, in Aſtronomy very learned, and in Aſtrology no leſs skilful, as many yet living do very well remember; for although he was Phyſician to *Robert Dudley*, that great Earl of Leiceſter, yet did he ſurvive him, and dyed long after King *Iames* came into England: by this Doctors means Sir *Chriſtopher Heydon* Kt.

of the County of Norfolk, became not onely a Lover but an admirable Student in Astrology; and to say truth, I do not find in all my reading that any of the Ancients did exceed him in Knowledg herein.

Some years after K. *Iames* his coming into England this learned Knight, to manifest his gratefulness unto Doctor *Forster*, from whom he acknowledged his initiation in this Study, did present unto him in London in a well written hand, this ingenuous and deep piece of Philosophy which I now make

make publike. Doctor *Forster*, as my self well know, received it as an inestimable Jewel, and preserved it in his Study amongst the rarest and choicest Pieces therein; but death depriving this learned Doctor of life in that year he was President of the Colledg, by great providence this ensuing Treatise came into my hands; which I have carefully preserved with great respect, both to the Author and matter it self.

I have many times endeavored its impression, but without success; for until of late years such was the error

or rather malice of the Clergy, who only had priviledg of licenſing Books of this nature, that they wilfully refuſed the publication: But of late caſually ſhewing this Manuſcript to my worthy friend E*lias Aſhmole* Eſq; he earneſtly deſired it might be made publike, freely offering to be at the charges of cutting the Diagrams in braſs, that ſo the work might appear in its greater luſtre.

I might here fall into a ſerious and juſt Commendation of every particular Chapter of this Work, and the weight almoſt of every word

word in each Chapter; but ſith the Work it ſelf is ſhort, I will not anticipate thy reading, but refer thee to the book it ſelf, having abundantly ſatisfied my ſelf in theſe my aged days to have added ſomewhat to the raiſing up of Aſtrology, which during all my years, and they are more then 70. hath been ſtrangely kept under, and aſperſed by men malicious and unlearned; ſo that although I had my ſelf many times ſerious thoughts of expreſſing my own Aſtrological Conceptions in publike, yet was I ever either dehorted

horted by Friends, or retarded by a ſervile fear of incuring the then preſent Powers. However, if God ſhall enlarge my days, I hope hereafter to be ſerviceable to the learned Society of Aſtrologers; unto whom I heartily commend this at preſent, and in the future ſuch other Pieces as he ſhall enable me to perform, while I live, and am called, Thine,

Nicholas Fisk.

Philiatros, &

Aſtrophilus.

Courteous Reader, Theſe Books following are printed for NATHANIEL BROOKS, and are to be ſold at his ſhop at the Angel in Cornhill.

1. PLanometria, *or the whole Art of Survey of Land, ſhewing the uſe of all Inſtruments, but eſpecially the plain Table; whereunto is added an Appendix to meaſure regular Solides, as Timber, Stone, & the like, and to find the contents of Timber tree as it groweth, uſeful for all that intends either to ſell or purchaſe, by* Ol. Wallingby. 8.

2. *An Arithmatick, diſcovering the ſecrets of that Art in Numbers and Species, in two Books: 1. Teaching by precept and example the operation in* Numbers, *whole and broken by* Decimals, *a new practiſe & uſe of the Logarithms,* Napyers bones, *with new Propoſitions, touching the Quantities, qualities and Rules of Medicines. 2. The great Rule of* Algebra *in Species, reſolving all Arithmatical Queſtions by ſuppoſition, with a Canon of the powers of*

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3. Tactometria, *or the Geometry of Regulars, after a new, moſt exact, and expedious manner, in Solids, not only in reſpect of magnitude or demenſion, but alſo of gravity or ponderoſity, according to any metal aſſigned, with uſeful Experiments, falling in by the way of meaſure & weight. And withall, the like artifical* Practical Geometry *of Regular-like Solids, and of a Cylindrical body, for liquid or Veſſel Meaſure, with ſundry new Experiments never before extant for gauging, a work very uſeful for all that are imployed in the Art Metrical, by* John Wiberd, *Doctor in Phyſick.*

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Hiſtories with curious Diſcourſe of Humane Learning.

1. *The Engliſh Gentleman, and Engliſh Gentlewoman, both couched into one volume, with the Ladies Love-Lecture, and a Supplement, called the Turtles Triumph, by* Richard Braithwait, *Eſq;* Folio.

2. *The Hiſtory of the Golden Aſs.* 4.

3. *The Painting of the Anciens, the beginning,*

pro-

progress and Consummation of that Noble Art; and how those ancient Artificers *attained to their still so much admired Excellency.*

5. *Israels Redemption, or the Prophetical History of our Saviours Kingdom on Earth, that is, the Church Catholique and Triumphant, with a Discourse of Gog and Magog, or the Battle of the the great Day of God Almighty, by* Robert Maton *of* Exon-Colledg *in* Oxon. 8.

6. *An Introduction to the Teutonick Philosophy, being a determination of the original of the Soul, at a Dispute held in the publike School at* Cambridg *at the Comencement,* March 3. 1646. *by* Charls Hotham, *Fellow of* Peter-House. 12.

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Wan-

Wandering, to ſtrengthen the Fainting, by John Brinſley *Miniſter of Gods Word at* Yarmouth.

5. *Comforts againſt the Fear of Death, being ſhort Meditations of that precious Gentlewoman Mrs* Anne Skelton *of* Norwich, *wherein are ſeveral Evidences of the Works of Grace in her own Soul, which were the ſtay of her Heart againſt the Fear of Death, by* John Collings *of* Norwich.

6. *Iacobs Seed, or the Excellency of ſeeking God by Prayer, by* Jeremiah Burroughs, *Miniſter of the Goſpel to the two greateſt Congregations about* London, Stepney *and* Criple-gate. 12.

10. *The Zealous Magiſtrate, A Sermon by* Thomas Treſcot.

11. Britania Rediviva, *or a Soveraign Remedy to cure a ſick Commonwealth, in a Sermon preached in the Minſter at* York *before the Iudges at the Aſſize,* Aug. 9. 1649. *by* John Shaw *Min. of* Hull.

9. *The Princes Royal, or a Sermon preached in the Minſter in* York *before the Iudges,* March 24. 1650. *by* John Shaw *Miniſter of* Hull.

10. *Anatomy of Mortality, divided into eight Heads.* 1. *The Certainty of Death.* 2. *Meditations of Death.* 3. *Preparations for Death.* 4. *The right Behavior in Death.* 5. *The Comfort in our own death.* 6. *The Comfort againſt the death of friends.* 7. *The Caſes wherein its lawful and unlawful.* 8. *The glorious Eſtate of Gods children after death. By* George Stronde.

ERRATA.

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Of

CHAP. I.

Of Winter.

NOt without great Judgment doth *Pliny* affirm those that first understood the obliquity of the *Zodiack*, *Rerum fores aperuisse*: For besides that, the finding out hereof prepared the way first to find out the periodical motions of the Planets. The Philosopher himself teacheth us, that the variety, generation and corruption of all things dependeth chiefly hereupon. And common experience driveth us to confess the access and recess of the *Sun* unto the four Cardinal Points of this Circle to be the most gene- *lib. 2. cap. 8*

ral and assured cause of the years successive alteration. Upon this ground I affirm the *Winter* quarter to take his true beginning at what time the Sun making his entrance into the Tropick of ♑, hath attain'd his greatest declination *Southward* from our Zenith or Vertical Point. From whence divers Impediments evident in Nature do follow, which bereave our Septentrional parts of that heat and vigor wherewith at other times the Sun being nearer, and more elevated, doth preserve and cherish the Elements, and all things compos'd of them, whether vegetable or sensative.

CHAP. II.

The first Reason of the difference between the Heat and Light in Summer and Winter, drawn from the diversity of Stay above the Horizon.

Continuance of operation what difference it causes between the temperature of Summer and Winter.

FOr whereas first of all continuance of action doth necessarily add force of operation to all natural Agents, it cometh to pass in Winter by reason of the Suns re-

remote Position, that his continuance above the *Horizon* is shortest, and his absence under the same longest, thereby now causing the shortest days, and longest nights. For example, the Elevation of the Pole at the honorable City of *London* is observed to be 51. g: 32'. and the greatest declination of the Sun in this our Age is 23.g:31'.30''. Therfore in the Winter *Solstice* the Sun finisheth his Diurnal Ark, to them of this City in 7 hours 34 minutes, and for this consideration can heat the Air here but a little while, seeing the same is not one third of a natural day, at which time nevertheless he remaineth hidden under the Earth more then twice so long, and so ceaseth from calefaction, imparting no benefit of his light and heat to us at all: Whereas in Summer the Sun persisteth 16 whole hours, and 26 minutes in operation, not ceasing above seven hours and a half from action, by reason of his absence under the *Horizon*. Wherefore look what proportion 7 hours 34 minutes have to 16 hou: 26 min: the like difference there shall be betwixt the Suns operation in Summer and Winter, in respect of his diverse stay

above the *Horizon*, which (not to be too ſcrupulous) is a double proportion the one to the other.

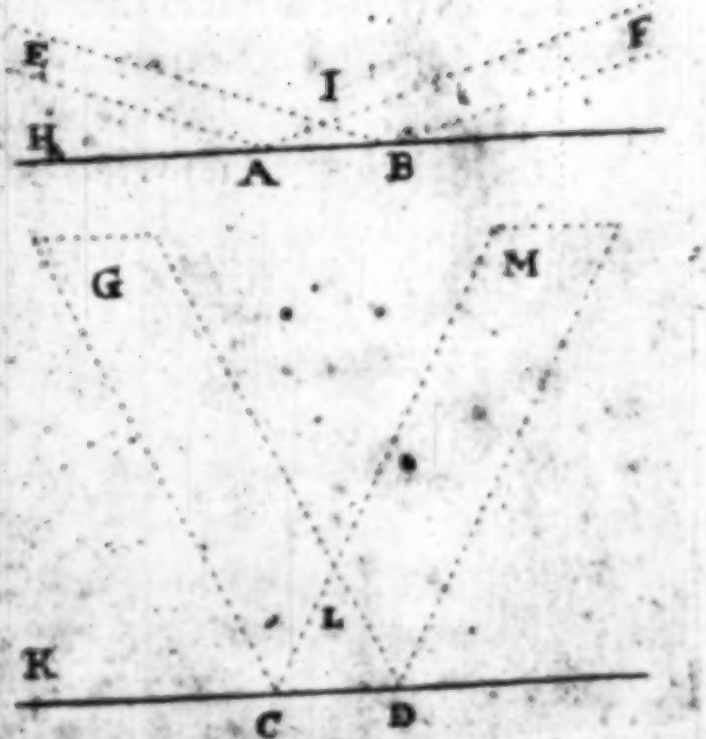
CHAP. III.

The ſecond Reaſon of the foreſaid Difference, drawn from the difference of Union in the Beams.

Union of Beams, what it cauſeth.

SEcondly, In the work of the *Stars* Union of Beams is a thing regarded, as of ſpecial conſequence. But it is clear to them that have any inſight in the *Opticks*, that in Winter the Union of the Beam, incident with the Beam reflected, is not comparable with that which the greater Altitude of the Sun cauſeth in Summer; and therefore the effects depending upon this Union, muſt accordly be increaſed or diminiſhed in proportion. That this is true,

Sup-



Suppoſe A B in the firſt Figure, and C D in the ſecond, to be two equal parts of the Earths *Superficies*; whereupon the Beams of the Sun E A in Winter, and G C in Summer do fall: E A in the Winter Solſtice, making an Angle with the plain of the Horizon H A B, of 14. gr: 56'.30". *viz.* E A H, or E B H, being the Meridian Altitude of the Sun at *London* upon that day. Likewiſe let G C K, or G D K, be admitted to irradiate the Earth at the higheſt Meridian Alti-

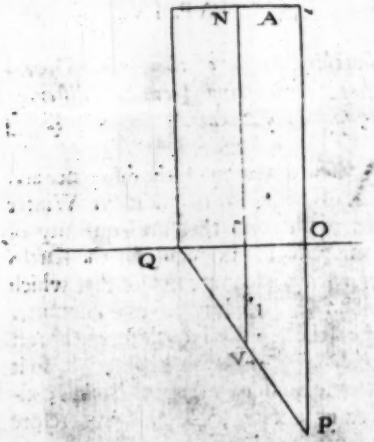
tude in the Summer Solſtice at an Angle of 61 gr. 59'.30". Then foraſmuch as (by the principles of the *Opticks*) the Angles of incidence and reflection are evermore equal, A F in the firſt Figure, and C M in the ſecond, being the reflected Beams, E F and G M ſhall be reverberated from A B and C D at like Angles with their proper incidents. Which being true, it is alſo evident, that becauſe the inward Angles at C and D are greater then the inward Angles at A and B, the Triangle C L D ſhall of neceſſity be greater then the Triangle A I B. And foraſmuch as the Union of the Beams, incident with the reflected, hapneth within the limits of theſe Triangles, therefore of conſequence the Union C L D in Summer is ſo much greater then the Union of A I B in Winter, as the *area* of the one doth exceed the *area* of the other, which is about, or rather ſomewhat above, ſix to one; and being joyned to the former difference, as is uſual in addition of proportions, proveth, that this difference of Union, together with the Suns ſtay in Summer, cauſeth the heat to exceed that which we receive in Winter above twelve times.

CHAP.

CHAP. IV.

The third Reaſon of the former Diverſity, proceeding from the differing quantity of Beams.

A Third Reaſon of the difference and diminution of heat in Winter proceedeth from the ſmall quantity of Beams which then illuſtrate the Earths *Superficies*, in compariſon of that which the Sun ſendeth down to us in Summer. For as the ſpecifical qualities of the reſt of the Stars accompany their light, ſo it is alſo true, that the heat of the Sun is conveyed unto us by his Beams. Wherefore the fewer the Beams be which fall upon the *Horizon*, the leſs alſo ſhall be the heat. And foraſmuch as in Winter the Sun darteth them more oblique then in Summer; therefore it is evident, that there ſhall not ſo many Beams fall upon the plain of the *Horizon* at the oblique Poſition of the Sun in Winter, as when he approacheth nigher to a perpendicularity in Summer. To demonſtrate this, *Quantity of Beams.*



Suppoſe Q O, and Q P, to be two divers *Superficies* of the Earth, upon which the ſame Beams A Q do ſhine diverſly; that is, *perpendicularly* upon the *Superficies* Q O, but *obliquely* upon the *Superficies* Q P. Then I ſay, that the Triangle Q O P, whoſe Angle at O is by ſuppoſition a right angle, the ſide Q P, which ſubtendeth the ſaid Angle muſt be greater then the ſide Q O, by the 18 of the firſt

of

of *Euclide*. And yet from hence we see it followeth, that all the light which is shed upon Q P, the oblique, but greater *Superficies*, shall fall notwithstanding upon Q O, the less, but directly subject to the Beams A Q. If moreover we take a space Q V in the greater *Superficies*, which by construction shall be equal to Q O, and from N to V draw down a parallel to the line A O P, it is evident that the Beam N Q, wherewith the *Superficies* Q V is illuminated, is but a part of the Beams A Q. For which Reason the *Superficies* Q V shall participate but part also of that heat which is communicated to the *Superficies* Q O, being directly subject to the Beam Q A, which also was manifest enough even by the precedent Figures, where the Winter Beams E A, compared with the Summer Beams G D, are next hand in proportion but as one to four, by reason whereof the Sun hardly imparteth ¼ of that light and heat to us at his Meridional height in the Winter Solstice, which we feel from his highest Position in the Summer. This Diminution, considered with the former Impediments, leaveth us not above the

forty

forty eight part of that heat in Winter, which we receive in Summer from the Sun.

CHAP. V.

The fourth difference caused by the depth or diverse crassitude of the Air by which the Beams pass.

Crassitude of the Air.

NEither can we be rightly said to have the full fruition of this portion of Heat in Winter, by reason that the crassitude or thickness of the Air is then more object to the Suns oblique Beams then in Summer, and doth thereby resist and hinder them more now then in Summer. For proof hereof,

let

let D F H represent the *superficies* of the Earth: I G N, the convex *superficies* of the cloudy or vaporous Region: And suppose the Sun to shine upon F, the place of our habitation, from three several points, Z, A, B. Z being the vertical point over our heads, A the Suns Summer height, B his altitude in Winter (as before was expressed:) So Z F, A F, and B F, shall be the Suns Beams, part whereof, *viz.* G F, K F, and M F, we see are in a sort obscured, hindered, and resisted by the vaporous Air. But now for as much as (by the 7 of the 3 of *Euclide*) G F is shorter then K F, & K F then M F, therfore the Sun shal of necessity feel less impediment in the Zenith at Z, then at A, and by consequence at A, then at B. because still the further the Sun is removed from the *Zenith*, the longer is the passage of the Sun-beams through the opposite air. Now to attain Geometrically to the proportion of the Suns debilitated force, through this impediment; we are first to agree how deep or thick this cloudy Region of the air that refringeth the Sun-beams may be: which our late *Artists*, to whom greatest credit

dit is to be given, as they have been more conversant and curious in the observation hereof, then their Predecessors, do all agree not to extend three English miles in the Perpendicular G F, as is plain unto them that are acquainted with the Disputations of *Tycho*, *Rothman*, *Kepler*, and others. For we must here distinguish between the matter of the *crepusculum*, and this vaporous air, which is so little elevated above the Earth, that hardly we may live upon the tops of some hills (as *Aristotle* testified of *Olympus*) without applying a Sponge to the nostrils for want of this thick air which we use in respiration: The like doth *Josephus Acosta* witness unto us of the *Seres* in *Peru*, which are hardly passable by such as labor to overcome their height; because the air, before they came to the tops of these hills, groweth so subtil and attenuated. And to add something of my own experience, my self having made some tryals of the height of the Clouds, as well in the heat of Summer, as at other times, could never yet finde them more lifted up above the superficies of the Earth, then 236. perches.

The depth of Vaporous Air wherein we live.

Where-

Wherefore admitting G F, which is the part of the Perpendicular line that penetrateth the groſs Air to be three miles, and F C, the *ſemidiamiter* of the Earth, to be 3436 miles, and the Summer and Winter heights as before; it will be manifeſt by ſupputation, that whereas K F ſhall pierce but four miles, or thereabouts, M F ſhall paſs twelve, and ſomewhat more. So that the oppoſition and impediment which the Sun-beams do ſuffer in Winter, is triple to that which they feel in their Summer paſſage, and doth therefore weaken the Suns force in that preparation. And being added to the reſt of the cauſes before ſpecified, doth demonſtratively prove (all together conſidered) that the heat in Summer exceedeth that which we receive in Winter in proportion, as 144. is to 1. In explaining whereof I have been the more curious, becauſe that which is here demonſtrated concerning the Suns apparition, is likewiſe to be applyed to the reſt of the Planets, which moving under the ſame Circle that the Sun doth, ſhall receive the like addition or abatement of force, and there-

therefore of singular moment to be observed in all Judgments.

CHAP. VI.

Why the ending of July and beginning of August is the hottest time of Summer, and so likewise the ending of January and beginning of February the coldest time of Winter.

BUt we must further consider, that although these four causes are most evident upon the very *Solstitial* days, yet it is not always of necessity that upon them we always feel the greatest heat or cold. But there is yet another general cause to be added, which in respect of it self doth commonly aggravate the bitterness of Winter about the beginning of *February*. The Reason whereof *Kepler* doth resolutely ascribe to *Privation* onely, with *Cardan*, further denying Cold to be a positive quality, and with him *Picus*, that any specifical vertue doth descend unto us from Heaven, besides Light and Heat; and therefore saith that

In fundam. Astrolog. Thes. 12 & 19.

that the Air, Water, and Earth, being naturally deſtitute of Heat, as they are material and thick Bodies, are neither ſuddenly warmed, nor ſuddenly cold, but conceiving Heat in *June* when the Sun is at the higheſt, do accumulate it unto the Heat of *July* and *Auguſt* after the ſame manner, and for the ſame Reaſon, that the heat of the day in the afternoon is greater then at high noon, until the Sun, after his declining by degrees from us, doth alſo by little & little withdraw his heat from theſe Elements, which then return to their former Nature, and do neceſſarily admit Cold in the abſence of Heat, which ſtill prevaileth more and more by the Suns long diſcontinuance from us, until after *February* be paſt, he begin to recover ſome part of his force again.

CHAP.

CHAP. VII.

The method set down which is observed in refelling Kepler.

WHereunto, because it concerneth the very Foundation of *Astrologie*, I must crave leave to answer, not doubting but if I can demonstrate that both Cold and all the rest of the first qualities do proceed essentially from Heaven, and are onely to be found by accident in the Elements, that this will give the Reader, who before stood in doubt, good satisfaction. And the better to clear this point, I will first shew, that Heat is neither essential to the Light, nor so inseparably united unto it, but that they are and may be severed as diverse in Nature; whereby it will likewise follow, that the rest of the qualities may concur with Light as well as Heat. This done, I will secondly make it plain that Cold is no privation, but a positive quality, and that neither it nor the rest of the qualities can originally be referred to the Elements

ments, but of consequence to Heaven, yea, and that without any incongruity in *Philosophy*, whatsoever the *Peripateticks* and their followers have heretofore thought. Which thus premised, the Reader shall be the better prepared to believe both that this common Intension in *February* is to be ascribed (as *Astrologie* teacheth) partly to those parts of Heaven, which the Sun doth then pass by, partly to such Constellations as do then rise and set; and also the better to conceive how the Intensions & Remissions of every season may grow by the particular passions of the *Planets* and the rest of the *Stars*, and not from naked *Privation*, as *Kepler* would have it.

CHAP. VIII.

Other qualities concomitate Light, as well as Heat.

AND now to prosecute these things in order: First, I affirm, That although we see Heat and Light to descend joyntly with the Beams of the Sun, yet

it doth not concomitate the light of all the Stars; for that heat is neither the ſubſtance of the light, (for aſſertion whereof *Scaliger* juſtly reprehendeth *Cardane*,) nor more to be confounded with light then ſight, then ſight is to be confounded with touch, whereof Light and Heat are proper Objects. For as we cannot feel the Light, nor ſee the Heat; ſo thoſe Senſes which are not always joyntly exerciſed together (as we ſee, and not feel, and feel, and not ſee) do teach us, that Light and Heat are diverſe qualities, and both in reaſon and nature may be conceived to ſubſiſt the one without the other. This will beſt appear by the definition of both, which evermore expreſſeth the nature of the thing in queſtion. Foraſmuch therefore as *Heat is that quality which doth congregate homogeneal things, and ſeparate thoſe that are heterogeneal*, which agreeeth not to the property of the Light, which is brought unto us by the Beams of the Stars, the ſame being defined (according to *Albazen* and *Vitellio*) to be only *The Species or Image of the inherent Light of the Sun or Star from*

Exercitat. 75.

Heat or Hotneſs defined.

Light deſined, or rather lightſomneſs.

whence

Whence it is ſent: There is nothing more evident then that that Heat which is conveyed unto us with the beams of the Sun, is of a diverſe nature from the light thereof. For both Sence and Experience do prove, That Heat is no Image or ſimilitude, but a real and active quality, which how it ſhould ſubſiſt in an Image as in the ſubject, or how Light ſhould ſubſiſt in Heat, being likewiſe an accidental quality, are difficulties which in my judgment will not eaſily be anſwered, except we can prove, that one accident may be the ſubject of another, which is againſt all *Philoſophy*. This then alone, although it doth ſufficiently prove, that Light and Heat are two diverſe qualities; yet to make it more apparent, dayly obſervation doth ſhew, That one may be and remain in the abſence of the other, as we ſee in Attrition, where Heat is excited without Light, and ſo we may exclude the Light, when nevertheleſs the heat of the Sun ſhall remain. And though the Earth, and the reſt of the Elements, retain the impreſſion of the former day, yet doth neither the Earth, Air, or Water, ſhine after the Sun is ſet: Wherefore if Heat may

thus exist, and be separated from the light; and it be also true (as before hath been shewed) that the one cannot subsist in the other, what may be more clear then that for these Reasons Light and Heat are two diverse qualities, and that Light can neither be the essence of Heat, nor Heat of Light? Truly therefore doth *Durandus* distinguish of their properties, teaching us, that the property of Light is only to illuminate, and that it is not of the essence thereof either to heat or infrigidate; *Sed* (saith he) *duntaxat merito corporis in quo inest, ut si virtute calidum sit, &c.* So then the heat, which accompanieth the light of the Sun, is not to be said any property of light, but in truth to be referred to the Suns occult and specifick Virtue: as with like reason I do affirm, and hereafter will prove, That the rest of the first qualities, together with the special properties of every Star, doth accompany Light as well as Heat. For it is clear, that there be many lightsom bodies which do not heat, but are rather actually cold, as for example, the *Diamond*, *Carbuncle*, and other precious Stones, besides the Eyes, Heads, and

Light in many natural Bodies, which yet be actually cold.

and Scales of Fiſhes, and the Sea it ſelf, which in tempeſtuous weather doth repreſent huge mountains of light. Yet to affirm that the Sea burns, would be reputed by the common Proverb, no better then a plain lye. So falſe is it, that light is always the cauſe of heat, and proceedeth only from ſuch bodies as are of a hot nature; which I could yet further amplifie by experience that I have made in Reflections, it being certain that *Spherical* Concaves, or *Parabolical* Sections, will as ſenſibly reflect the actual cold of Snow or Ice, as it will the heat of the Sun. Wherefore if Cold may accompany the reflected Light, why not the original Light it ſelf? Neither do I deſire herein my bare word to go for payment, but do further remit him that ſhall call this in doubt unto his own practiſe, and the Teſtimonies of *Maginus*, who, in the Repreſentations of his Glaſs ſent to the *Emperor*, doth confirm the ſame in theſe words: *Species eſſe ſenſu tactus perceptibilis, ut apparet ex lumine candela, item ex nive & glacie infrigidante per ſuam imaginem remotè admodum.* And my ſelf have often made the like

Cold accompanieth reflected Light.

The light of the Moon not to be hot, found by reflexion.

tryal of the full Moon, which nevertheleſs is reflected without any heat at all that ſenſe can perceive, notwithſtanding that the ſame Glaſs doth ſenſibly reverberate heat with the light of a ſmall candle, and reflecteth the beams of the Sun with that force, that it inflameth all combuſtible matter in an inſtant, and cauſeth Lead to run. Whereunto then may it be imputed, that the Moon ſhining with her borrowed light, doth not ſenſibly warm, as well when it is projected from the Sun? Will they anſwer that the Suns light is debilited by reflection from the Moon? But if they maintain heat always to accompany light, then this is no anſwer. And though I ſhould yield that it may weaken the heat alſo, and cauſe calefaction in a leſſer degree, yet this doth not ſatisfie how ſo glorious a Light as the full Moon doth yield, eſpecially in Winter, ſhould be deprived of all heat, when the ſame is collected, re-united, and multiplied again, in which caſe as well all Beams are as well ſtrengthened by reflection, as weakened without his help. Add hereunto, that the greateſt Froſts happen in the faireſt Moon-ſhine nights,

nights, which proveth Cold to accompany her light. VVherefore I rather affirm this to be another notable Argument, proving Light of an indifferent nature, neither hot nor cold of it ſelf, but to participate of the quality of the ſtar, or other body from whence it is reflected, ſeeing the ſame light which from the Sun cauſeth heat, hath no ſuch quality reflected from the Moon, but rather the contrary, and diverſe from it, the force thereof chiefly ſhewing it ſelf in cold and moiſture. But if *Keplers* opinion were true, that Cold were nothing but a meer *Privation*, this could not be: and therefore leaving that which hath been already alledged to the Judgment of the learned, I hold it very material, according to the order formerly propounded, to prove next, That Cold is a poſitive quality.

CHAP. IX.

Cold a positive quality, as well as Heat.

AND first I demand of *Kepler*, or any that maintaineth his Opinion, if Cold be ascribed to nothing but privation of Heat by the Suns long absence, how it cometh to pass, that one VVinter doth far exceed another in extremity of Cold? Will he answer that the Sun is more remote, or longer absent from us, one year then another? It were too ridiculous, knowing that the Sun hath his limits prescribed, which he never did transgress, neither can, without violating the Law of Nature. The uniform course of the Sun therefore can be no cause of this variety of one year from another: Neither (if it be well considered) can Privation be any cause of Cold at all. For seeing Privation is no nature in Being, but only an imaginary *non ens*, how can that which is not have any action ascribed unto it? Such a cold therefore could not refrigerate, and so in truth can be

Privation can be no cause of Cold.

be no cold at all. But on the contrary, we ſee that Cold is ſuch a quality, as actually conſtringeth Hail, Snow, Froſt, and other congealed Meteors; it condenſeth the flowing *Superficies* of the Water into a firm glaſſie Subſtance; it chilleth the Blood, and benumeth the Senſe with the extremity thereof: And to be ſhort, through the real exiſtence of this quality in any Subject, we ſee it giveth the ſame denomination of Cold, and that the Senſe is able to judg it ſo: But it were abſurd to ſay we could feel that which is not, and againſt all Reaſon and *Philoſophy* to aſcribe theſe effects unto ſuch a thing as reſteth only in imagination but hath no Being in Nature. Wherefore this Error in this Point is as palpable as the Cold it ſelf. And to add ſomewhat more unto that which I have already ſaid, I ſee not how this can be admitted, except we will further reduce *Phaetons* world again. For if there be no poſitive nature to moderate and reſiſt the multiplyed heat of the ſtars; it cannot be but in continuance of time all the whole frame of the world muſt be ſet on fire. For ſo long as the ſtars

ſhine,

shine, they still affirm succeeding heat to descend with their light, whereupon it doth necessarily follow, that if there be no positive nature to refrigerate, all must needs be inflamed. They must therefore first remove the Sun and Stars out of Heaven, before they can establish their vain Cold by absence and privation of Heat. Which were it granted unto them, see further how, whilst they avoyd *Scylla*, they fall into *Charybdis*. For as on the one side Privation, being a meer Negative, hath no action, and therefore (as hath been proved) cannot moderate the heat conceived in Summer: So on the other side, suppose Cold once induced into the world by privation of Heat, and it will be as impossible to restore Heat again by the return of the Sun, or any other natural means, as to give life to a dead man. For *a privatione ad habitum nullus est regressus*. As for their *simile*, or example, it will do them small service: For seeing that betwixt twelve and two in the afternoon the Sun continueth his action still without interruption, their own reason will teach them, that this is not

ad

ad idem. For we ſpeak of the intended qualities of the Seaſons, where, by intercourſe of the nights, they muſt needs confeſs an intermiſſion of the Suns apparition, which alone (as we read) ſerveth greatly to qualifie the Suns order to them that dwell under the Æquinoctial. Wherefore to conclude this Point alſo: foraſmuch as Cold is the oppoſite quality to Heat, which of it ſelf is by *Kepler* and *Cardane* confeſſed to have a real exiſtence in Nature: They muſt alſo be driven to acknowledge Cold to be more then a meer Negation and Privation, becauſe it is impoſſible that that which is not habituall can be actually contrary to a particular Nature in Being.

CHAP.

CHAP. X.

The first Qualities originally from Heaven, not from the Elements.

HAving therefore (as I take it) sufficiently proved Cold to be a positive quality, the next thing which in order offereth it self to be decided, is, whereunto we shall originally refer the same with the rest of the first qualities. And forasmuch as the whole *Systeme* of the world is distinguished into two parts, *Celestial* or *Elementary*, we must of necessity primarily derive them from the one or the other. But I will prove, That they are only by accident, and not essentially, in the Elements; wherefore of consequence originally to be ascribed to the heavenly Bodies. I know they are commonly placed in the definition of the Elements, and therefore they define Air to be hot and moist, Water cold and moist, Earth cold and dry. But if it be better considered, we may more truly say with *Roslinus*, That the Ele-

Elements rather eſſentially differ one from another in other qualities, which are as it were the off-ſpring of theſe, as in rariety, denſity, levity, gravity, liquidneſs, ſoftneſs, tranſparancy, opacity: For ſo is the Earth, an heavy, thick, dark, firm and ſtable Element. The Water likewiſe ſoft, flowing, and navigable. The Air light, rare, liquid, and permeable; and ſo tempered one to another in proportion, that as the Air, in the rarity and liquidneſs thereof, is to the ſoftneſs and flowing nature of the Water, ſo is the like conſtitution of the Water unto the denſity and firmneſs of the Earth; neither thin nor thick in extremity, but of a middle temperature between both. And in a word, they are all proportioned to the heavenly Bodies, but as the matter of things meerly paſſive, not having their firſt qualities eſſentially in themſelves, but by accident from Heaven. Thus teacheth *Ariſtotle* himſelf, and thus ſays his Expoſitors, *Zabarella*, *Toletus*, *Scaliger*, and others. Neither do I reſt upon their authority alone, but upon their firm and evident Reaſons. For were theſe the eſſen-

Wherein the Elements differ eſſentially.

Ariſt. li. 1. Met. cap. 4. Zabar. li. 1. de qualit. Element. cap. 2. Toled. 2. de gen. & cor. 2. q. 1. p. 309. Scalig. exer. 18.

Form admitteth not of intension and remission. Axi. *But Heat and Cold are intended and remitted in the Elements; Ergo these qualities are not formally in the Elements.*

essential forms of the Elements, they could not be intended and remitted, because it is against the principle which denyeth form to admit intension and remission. But these qualities are sometimes more or less in the Elements; wherefore neither can they be affirmed their essential forms, neither can the Elements themselves be said the first subjects of Heat, Cold, Moisture, and Siccity, considering that both Experience and Sence teacheth us, that they be neither hot nor cold, but indifferently disposed to the receiving of all the qualities, and not more capable of the one then the other. For example, to them in a right *sphere* the Air is always hot, by reason of the *perpendicularity* of the Sun-beams. To us it is variable, sometimes hot, sometimes cold, sometimes moist, and sometimes dry. And to them nearer the *North Pole* for the most part cold. Nay, which is more absurd, were these qualities formally in the Elements, we should of necessity be driven to constitute two forms in every Element answerable to the two first qualities ascribed to every one of them, and those not

not differing *secundum magis & minùs*, but in the highest degree of perfection, and that in such sort also as they might not be reputed of the same special kind, but to vary one from another. For if the moisture of the Air should not differ from the moisture of the Water, confusion would follow, and so no distinction at all of the Elements. And yet if these qualities be admitted of a diverse species, in stead of four we must constitute eight first qualities. Wherefore I take it very clear, that seeing the first four qualities cannot originally be derived from the Elements, necessity will infer by consequence, that their first inherence is in the inward forms of the heavenly Bodies, from whence by accident (as *Aristotle* teacheth) and not otherwise, they are conveyed into the Elements.

Absurdity following upon admitting the first qualities to be formally or essentially in the Elements.

CHAP.

CHAP. XI.

The ſcruple of alteration in Heaven, (which made the Peripateticks, Picus, Cardane, *&c. to aſcribe the firſt Qualities to the Elements,) taken away.*

WHich being true, it will not be labour loſt, after theſe *grounds* thus laid, to borrow a little more patience for examination of the Reaſon why *Picus*, *Cardane*, *Kepler*, with others, frankly confeſſing heat to deſcend with the light of the Stars, are nevertheleſs ſo nice to ſubſcribe to the derivation of the reſt of the qualities from Heaven: The conſideration whereof will alſo ſomething explain unto us the differing maner between their inherence in the Stars, and in the Elements. And ſurely I find none other Reaſon of their doubt in this Point, but that they fear if contrary qualities ſhould originally be found in Heaven, we muſt withall induce action and paſſion between the heavenly Bodies, and ſo by conſequence, generation and corruption,

ruption, whereof the *Peripateticks* may not abide to hear. Which Objection may diversly be answered. For first, whatsoever the *Peripateticks* have held, we know the world to have had a beginning, and therefore even by their own doctrine it shall have an end. And the experience of latter times hath sufficiently proved Heaven subject to alteration: as is evident by that Spot which, in the time of *Charls* the Great, continued 8. or 9. days in the Sun, being by *Historiographers* (though ignorantly) reputed to be *Mercury*. For *Copernicus* after supputation findeth it not to be *Mercury*, but a prodigious Meteor, which could not happen but in the *Sphere* of the Sun, considering it accompanied the Sun it self so long time together. The like, *Buntingus*, *Gemma Frisius*, and others, report of that strange and bloody obscurity, which *Anno* 1547. did so darken the Sun three whole days together, as the stars for the most part were seen at high noon. But what need I run to forraign Testimonies? when all *London* can bear me witness of the like Blot, which in the year 1604. 11. and 12. of *Octob.* appear-

Alteration in Heaven by experience exemplified, as well as by Reason confirmed.

Lib. 1. ca. 10.

ed first a little above the South-East Periphery of the Sun, and seemed to move by little and little unto the center of his Globe. And whereunto shall we refer the illumination and extinguishing of the Comets and new Stars, which in this our age have been observed to flame in Heaven it self? Do they not all demonstratively prove *generation* and *corruption* in Heaven? True it is, that by reason of our remote distance from the heavenly *Spheres*, we cannot by sense attain to every particular alteration which hapneth there. And therefore *Aristotle* neither being acquainted with the Worlds Creation, nor in former ages finding any alteration in Heaven, but still receiving by tradition, that the Planets, the fixed Stars, their motions, and the *medium* in which they are, remained the same, while in the mean time the Earth and Elements are dayly subject unto divers changes familiar to our eyes, concludeth from Experience, Heaven to be priviledged from all mutation, but the Elements to be obnoxious thereunto. But could either *Aristotle* be informed, that now this latter age (more diligent then the former) hath ob-

By reason of the immense distance of Heaven, the alterations there not sensible.

observed new bodies in Heaven, or were it possible that our mortal eyes might from the Heavens behold the Earth, as now from the Earth we behold them: I verily am perswaded, that both the *Philosopher* would change his opinion, and that we should from Heaven behold as little alteration in the Globe of the Earth, as now we observe in Heaven. He that listeth to read more of this matter, let him peruse *Kepler* himself, *cap.* 23. *de Nova Stella*, where he doth purposely treat of this Subject, and proveth by five particular Reasons, That the matter of Heaven is alterable. Which if it be true, then is their Argument from the consequence of alteration of no force against the first qualities in Heaven, but rather to be retorted upon themselves in this manner. That because there is a *generation* and *alteration* demonstratively observed, *ergo* the first qualities may likewise be affirmed there as fit Instruments of these Mutations. But nevertheless leaving this Doctrine in suspence, because it is new: Yet is not our Cause so needy, but that I dare otherwise undertake to prove the Con-

The second Reason shewing, that the admitting of the Stars to produce the first qualities, doth not necessarily induce alteration in themselves.

sequent of the Reason to be false, for that the Stars may very well be justified to have divers and contrary virtues, without admitting any passion in the heavenly Bodies. For *Astra agere quod in seipsis non est*, is no rare Maxim among the learned, some of whom use this distinction between the differing manner of these qualities in the Stars otherwise then in the Elements, by supposing them in the first only *effective*, and in the latter *subjective*: Because (as they will have it) the Stars are not actually hot or cold, but *virtualiter*; that is, they have a certain power to produce Heat and Cold, and the rest of the qualities in the other bodies out of themselves, which nevertheless are not in themselves. But for mine own part, I freely confess not well to conceive this subtilty (though it be *Scaligers*) how the Sun not being habitually hot, yet nevertheless can burn.

The third Reason granting the heavenly Bodies to be actually hot or cold, yet without mutual action or Passion, by reason of the Prerogative of the matter.

Rather to go more directly to the work, I hold the efficacy of the Stars to proceed from that natural virtue which is originally

originally inherent in themſelves, which notwithſtanding ſhall never the more ſubject theſe excellent Bodies to alteration. For as the *Load-ſtone* (more precious then any *Diamond*) hath in many points a ſingular affinity with Heaven, ſo it doth not fail to lend us a moſt lively example, how contraries may be found in the ſame natural body without deſtruction thereof. For what can be more contrary then attraction & repulſion? Yet if the Needle be touched with the North Pole of the Load-ſtone, it is certain, that as that part will attract the ſame, ſo the contrary Pole or End will make it fly away, yet without any danger or paſſion in the ſtone it ſelf. Why ſhould we not therefore believe, that as Heaven is far more excellent then theſe ſublunary Bodies, ſo it ſhould be endowed with all the virtues which are found here beneath in a far more excellent manner, and without any prejudice to the purity of the matter whereof it conſiſteth. For if the *Matter* be not proportioned unto the power of the *Agent*, no effect can follow. But even by the Doctrine of the *Peripateticks* ſuch is the matter of Heaven,

consisting of a simple and fifth essence free from all passion, *ergo* although we do admit contrary qualities to flow from the Stars, yet shall this work no alteration, because the matter of Heaven is not an apt subject for this purpose. And for this Reason we may not consider these qualities, as they are found in the Elements, or mixt Bodies, whose matter is passive, but rather as they are inherent in a simple and pure essence, priviledged from corruption, being for this cause called by *Aristotle*, ἀγενητοι, καὶ ἀτρεπτοι, thereby to distinguish them from those inferior things which are mutually subject to action and passion, because they consist of elementary matter. I doubt not therefore but by this which hath been said it doth sufficiently appear, That in this Controversie between the Stars and the Elements, these celestial and pure Lights have obtained priority, as first indued by God with natural power by their motion, Light and secret influence to excite and stir up Heat, Cold, Moisture and Siccity in these sublunary Bodies subordinate unto them, according to their several virtues.

CHAP.

CHAP. XII.

The Cauſe why the Cold in Winter is greateſt in February proved to proceed from the different Points of Heaven, whoſe diverſity is ſhewed.

WHerefore now to return from whence I digreſſed: Having thus prepared the way, I may the more boldly proceed, and with better aſſurance, according to the Rules of *Aſtrologie*, aſcribe this increaſe of Cold, which commonly hapneth about *February*, partly unto the complexion of that Sign which the Sun then paſſeth, partly to the apparent riſing and ſetting of thoſe Conſtellations which ordinarily agree to this moneth. And firſt concerning that part of Heaven which the Sun then holdeth, we are to know that it is the Dominion of *Saturn*, whoſe influence excelleth in exciting Cold, (as in that which follows I hope infallibly to demonſtrate,) the ſame being *diametrically* oppoſite unto the Royal Pallace of the Sun, which alone, to thoſe that repoſe in the principles

delivered by *Aſtrologers*, is ſufficient Reaſon in this caſe. But if any there be that doth doubt thereof, and whether the matter of Heaven may admit variety as well as the Stars, I doubt not but to ſatisfie him alſo, partly by Reaſon, partly by undoubted Experience.

The firſt Reaſon drawn from the ſympathy of theſe inferior things with the Parts of Heaven.

For firſt, whereas we ſee the forms of divers things in this ſublunary world apparantly to conſent both with certain Stars, and with the particular Regions of Heaven, Reaſon teacheth us, that this can proceed from no other probable cauſe in Nature, then from the ſympathy or agreeable temperature of their Subſtances. And that one or two examples may ſtand for many, we ſee the North part of Heaven particularly to affect Iron, that hath either layn long North and South in ſome old building, or that otherwiſe hath bin forg'd at ſuch a poſition, as preciſely reſpecteth the ſame. But above all, who is ſo ignorant of the like impreſſion in the *Load-ſtone*, as that he knoweth not the Mariner thereby to ſhape his Courſe, and to be further able (by the ingenious diligence of our Countryman Mr Dr *Gilbert*) to give the elevation of the Pole whereſo-

ever

evet he be come? Considering therefore that this distinction of Regions is not to be ascribed to any Star, but to the whole *Systeme* or Body of Heaven, therefore here we see directly a respective quality impressed in these Subjects, which cannot be ascribed to any thing but the matter of Heaven.

The second Reasonborrowed from Valesius de sacra Philosophia.

Again, whereas even *Picus* himself, and the Enemies of *Astrologie*, do grant thus much to *Aristotle*, That if Heaven were quiet, and stood still, nothing could have motion; which granted, it also followeth, according to the proportion of the first motions which are proper to Heaven, That all the natural motions of inferior things are both excited and ordinated: *Valesius* demandeth whether Heaven simply performeth the same by the motion thereof, or by accident. By *simply* he meaneth, as if Heaven did communicate this motion only because it is moved. By *accident*, as if by moving it communicateth an accidental faculty of motion unto other things: as when the hand moveth the candle to flax; the hand by his own motion moveth the candle, and so burneth the flax or straw; the one

one by it self, because it doth not otherwise move the candle, then by the motion of the hand: but it doth the other by *accident*, because by moving of the hand and the candle, it also conveyeth the flame, which burneth of it self. If therefore Heaven, by the motion thereof, doth immit any motive faculty unto things, by help whereof they are moved, then hath it of necessity another virtue of moving besides the own Motion. But if *Picus*, to avoyd this, deny Heaven to impart any such virtue, and persist in this opinion, that Heaven moveth because it is moved: Then saith *Valesius*, it shall not skill of what matter Heaven consisteth; seeing this effect would as well follow, if Heaven were of wood, mettal, or stone, and were withall carryed about. But this could not be: For if a wooden Sphere were turned about circularly over our heads, why should a stone and smoak (for example) move, in a streight line, the one upward, the other downward? For whatsoever moveth another, it doth it either by *impulsion*, *attraction*, *volution*, or *vection*. But a stone falling, is neither drawn, thrust forward, carryed,

or

of turned about by Heaven; seeing the same falleth in a streight line: Wherefore *Valesius* strongly concludeth, That the matter of Heaven concurreth with those things that are moved by immitting to the vertue which moveth every thing in the kind, which yet is diverse from the circular motion it self.

Besides, if that be true which *Aristotle*, and with him hitherto Schools of *Philosophy*, do teach in the definition of a *Star*, That there is no difference between the same, and the Orb wherein it is fixed, but that the Star is *Densior pars ejusdem*; Then I say, it doth unanswerably follow, That as the *Stars* differ one from another in Motion, Magnitude, Colour, and Vertue; so likewise those parts of Heaven wherein they are fixed must needs admit the like variety of nature and qualities. If any following the late opinion of *Tycho*, and others, shall here deny the Stars to be fixed, and inherent in the matter of Heaven, and affirm the substance thereof to be liquid, giving way as the Stars move through the same: I answer, That besides it will be incomprehensible in a mans understanding

The third Reason from the definition of a Star according to Aristotle.

derſtanding, how all Stars ſhould finiſh the diurnal motion from Eaſt to Weſt, and yet in the ſame moment ſtrive with a contrary Endeavor in that which we call the proper motions from the Weſt to the Eaſt; and that which is more, at once both aſcend and deſcend from or neerer to the Earth. They ſhall hardly in the end be able to make this their conceit ſtand with the motion of Γαλαξία, which (as it is evident to Senſe) is the very ſubſtance and matter of the Heaven it ſelf, differing only from the reſt of Heaven in whiteneſs of colour. And yet we ſee both the ſame Stars now contained within the latitude thereof, and others to deſcribe and limit the tract of this Circle, as it croſſeth the *Zodiack* from one *Tropick* to the other, which *Ptolomy* did comprehend, & define the ſame by, in his time; which to my poor underſtanding doth infallibly prove, That the fixed Stars at the leaſt are inherent and faſtened in the matter of Heaven, for that otherwiſe the Subſtance of this Circle could not now be found equally moved from the Æquinoctial Points with the Stars that were then in and about the ſame. I might

[l.] Almageſti.

yet

yet confirm this further by that *Sympatny* which is found betwixt the Points of Heaven in the time of Conception and Nativities, and betwixt the figure of the Fathers Nativity and the Sons: but for brevity sake I remit him that will be better informed to *Kepler*. *Li. de Nova Stella ca. 10.*

And now to confirm these Reasons by Experience; I know not what better course to take, then to appeal to their Testimony who have travelled into *America*, in whose stories we read, That the same parts of Heaven, both to them and us, retain the same qualities. For thus *Johannes Lerius*, in the History of his Navigation into *Brasile*, affirmeth, That their Ship passed the Æquinoctial the day before the *Nones* of *February*, which was about the fourth of that moneth, at what time nevertheless the Sun being in *Aquarius* he complaineth of great Tempests, extream and corrupt rain, with inconstant and tempestuous storms of winde. And no less (if not more) notable is that which I find in *Josephus Acosta*, whose words, for the Readers better satisfaction, as they lie *Lerius, ca. 4.*

in

Lib. 2. de Nat. Novi orbis. Ca. 3. pag. 85.. in editione Collon: Agrip. p 68.

in the English Translation, I will set down, as followeth. *Truly* (saith *Acosta*) *it is an admirable thing, and worthy of observation, That the Air is most clear, and without rain under the burning Zone, when as the Sun is furthest off: and contrariwise, there is most Rain, Snow, and Mists, when as the Sun is nearest. Such as have not travelled in this new World, will haply think this incredible: and it will seem strange unto such as have been there, if they have not well observed it. But the one and the other will willingly yield, in noting the certain experience of that which hath been said of this part of* Peru, *which looks to the Southern or* Antartick Pole: *the Sun is then furthest off when it is nearest unto* Europe; *that is,* May, June, July, *and* August, *when he makes his Course in the* Tropick *of* Cancer. *During which moneths the Air at* Peru *is very calm and clear, neither doth there fall any Snow or Rain; all their Rivers fall much, and some are dryed up quite. But as the year increaseth, and the Sun approacheth near the* Tropick *of* Capricorn, *then begins it to Rain and to Snow,*

and

and their Rivers ſwell from October *to* December. *Then after that, the Sun retyring from* Capricorn, *when as his Beams reflect directly upon the heads of them at* Peru, *then is the violence of their Waters great, then is the time of Rain, Snow, and great over-flowings of their Rivers, when as their heat is greateſt; that is, from* January *to mid* March: *this is ſo true and certain, as no man may contradict it.* Hitherto *Acoſta.* By which it appeareth, that the Sun in the ſame Signs cauſeth like effects to them beyond the Æquinoctial, that at the ſame time he produceth here to us, the faireſt or fouleſt weather hapning to both at the ſame inſtant: which may ſatisfie the moſt obſtinate in this point, ſeeing throughout the whole world the ſame parts of Heaven keep ſtill the ſame quality. Thus much therefore ſhall ſuffice concerning the general conſtitutions of the Seaſons, as the ſame chiefly depend upon the Sun, and the parts of Heaven which he paſſeth.

CHAP.

CHAP. XIII.

Of the particular Intenſions or Remiſſions which happen by Poſition of the Planets.

BUt as for the Intenſion hapning by the fixed Stars, it ſhall hereafter be handled by it ſelf, as I come to the ſame in order, foraſmuch as the greateſt diſpoſition of weather may and doth admit Intenſion and Remiſſion in the particular parts thereof for divers other cauſes; we muſt likewiſe have reſpect unto them: Amongſt which the firſt that offereth it ſelf unto our Conſideration, is the place or Poſition of the *Planets*, who moving under the *Zodiack*, ſhall for the ſame Reaſons receive the ſame increaſe and abatement of force in their Operations, which before I have proved the Sun to receive. For conſidering the power of *Saturn* conſiſteth chiefly in cold and congealed Meteors, it followeth for an infallible *Maxim*, That we are then pinched with the ſharpeſt and longeſt Winters, when *Saturn* having ſurmounted the Æquinoctial

Our ſharpeſt winters by Saturns *Poſition, when he is in* Perigæo Excentrici & Epicycli, *viz. in the end of* ♐, *confirmed by demonſtration & experiment.*

quinoctial, ſhineth in the *Septentrional* Signs neareſt our heads; by means whereof, as the Suns force beginneth to grow weak, during his ſcituation in thoſe Signs, his cold influence ſhall prevail ſtill more & more, as well becauſe of his ſlow motion, and long continuance in one place, as alſo by reaſon of the more direct projection of his Beams, and great deſcribed Ark above the *Horizon*. In all which reſpects his impreſſion muſt then be more forcible, and the rather, that he then conſiſteth above the Perigæon of his Orbs, and ſo becometh the neareſt the Earth that he can approach, which ſtill addeth much to his efficacy. And that experience doth confirm thus much, I refer the *Reader* to *Pontanus*, and *Valentinus Nabod*, in his Comentary upon *Alcabitius*, and alſo to *Reiſnerus* his Opticks, where illuſtrating this Propoſition, That *All light the nearer it is, the more ſtrongly it doth illuminate the Object*, he hath theſe words. *Hac ratione* (ſaith he) *Anno* 1441. *ſub Imperatore Friderico Proavo Imp: Caroli* V. *paulo ante cladem Varnenſem Saturnus currens per poſtremos partes* *Li.* 1. Prop. 17. *Ann.* 1441. a ſharp winter.

Geminorum, Soli oppoſitas, falluſque terræ quam propinquiſſimus, tam ratione eccentrici quam epicycli, luminis ſui propinquitate in uſitatum illud frigus effecit, quod adeo ſævum fuit diuturnum, ut in Hiſtoriam Commentarias referri meruerit. Here therefore they that will be ſatisfied, may behold Demonſtration as well as Experience, for which cauſe I hold it needleſs to commemorate any further examples hereof, eſpecially ſeeing it is not ſo long ſince the year 1591, at what time being likewiſe placed in ♊, as well as the years immediately before and after, the effects of his cold influence were ſo laſting and hurtful, ſpecially to ſheep that periſhed in the deep of Snows, as I know they cannot be yet forgotten. Notwithſtanding it ſhall not be immaterial to add this out of *Funckius* his *Chronology*, that in *Anno* 1427. he noteth the Winter to paſs away without cold; For (ſaith he) it was *Hyems ſive frigore.* Whereupon calculating *Saturns* place for that time, I find it in the midſt of ♐, the ſign of his greateſt diſtance from the Earth, where he ſuffereth all the debilities which before I have ſhewed

Ann. 1591. *the like.*

ed the Sun to do in Winter, and therefore material to be considered for our purpose. For though he be not in ♈, yet seeing both those Signs have equal declination, I hold it all one. The like observation therefore I desire them that impugn this Art most, and are not obstinate, to make for their own satisfaction, and I know that when they find *Saturn* to have been and to continue still in his greatest remotion and weakness, they cannot but subscribe unto his virtue in cold effects, seeing it is so manifestly confirmed, that generally our Winters are the coldest when he is strongest in operation, and so milde and temperate when his Beams are not able to express their qualities.

CHAP. XIV.

Intension and Remission by the Motion of the Planets.

NExt the scituation and place of the Planets, that Intension and Remission which happeth by these Passions that re-

result from their motion through the *Anamaly* of their *Eccentricks* and *Epicycles*, are not unfit to be considered. Not that the diversity of Motions altereth the nature of the Planets, which is ever the same, but because in regard hereof they work not after one manner in every place, nor yet alike in the same place at the same position, but diversly in all places, as the force of their operation is increased or diminished through this diversity of their particular motions, and then diversly applyed by the diurnal Revolution of the Heavens unto the matter of *sublunary* things. For as is well known to those that are acquainted with the *Theoricks*, the Center of their *Orbs* differing from the Center of the *World*, causeth them in respect of us to move irregularly, as sometimes Directly, according to the succession of the Signs; sometimes Retrograde, and against their order: their Motion also for the same Reason being sometimes swift, sometimes slow, and sometimes nothing at all but stationary. Which great diversity must of necessity cause variety in the manner of their operation. For as the motion of a Planet

that

that is *direct*, doth greatly avail to his long ſtay and continuance above the *Horizon*, in that it comprehendeth more then one intire period of the *Æquinoctial* in his diurnal Revolution: So that Planet which is *Retrograde*, ſeemeth not only to forſake his own natural courſe, (becauſe the proper motion of every Planet is performed towards the Eaſt,) but beſides, he is alſo eſteemed purpoſely to refuſe that opportunity of ſtrengthening his operation by long continuance above the *Horizon*, which, by holding on a direct courſe, he doth obtain. Yet notwithſtanding my opinion is, and both Reaſon and Experience do confirm it, That *God* hath not vainly ordained this Law in their Motions, but that it doth rather evidently admoniſh us, that this *Planet* doth (as I may ſay) by this Retrograde Motion aſſuredly purpoſe ſome particular effect, conſidering he ſeemeth rather to violate the conſtant Decree of Nature, then it ſhould be unperformed. In which reſpect *Aſtrologers* uſe to call ſuch an Application as hapneth by Regreſſion to a Planet that is direct *Violent*, or the doubling of the effects. And

A direct Planet longer above the Horizon then a retrograde, which is the reaſon why Retrogradation is reputed a Debility in reſpect of it ſelf.

Application by Retrogradation violent.

In what respect a Planet shal double and treble his efficacy beyond that which a direct Planet can.

moreover it is to be observed, that a Retrograde Planet doth, by means of this passion, pass, return, and re-pass the same small Ark of the *Zodiack* thrice in few days, whereby the former loss, which he suffereth through interruption of his diurnal Ark, is as it were treble recompensed by his three-fold reiteration of the same course.

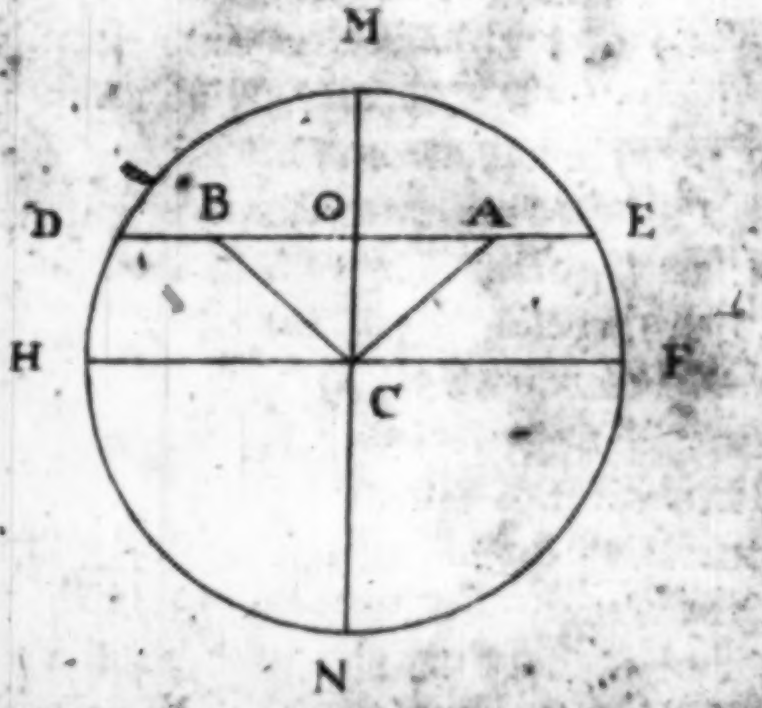
CHAP. XV.

Intension and Remission by Parallelism.

I Have before spoken of the place and motion of the Planets; now I intend to shew, That the *Parallel* which the Planets describe by reason of their place and Motion, is likewise of great force to cause Intension and Remission, when any two, or more of them, happen to describe the same Circle æquidistant from any of the *Tropicks*. For then having equal Declination towards the same side of the *Æquinoctial*, they rise and set exactly in the same points of the *Horizon*: they come

The Reason why Parallelism is so effectual.

come to the *Meridian* at the ſame height; the Ark alſo which they deſcribe above the *Horizon* as well as under the ſame; by reaſon whereof their Beams ſucceeding one another, ſhall not only impreſs the very ſame line upon the Earth, but beſides in their like ſcituation and diſtance of each ſide of the *Meridian* their Beams ſhall make right Angles of Incidence, whereby at that time they are alſo united by reflexion; as in this Figure.



Where let N H M F be ſuppoſed the *Horizon*, M N the *Meridian*, H F the *Æquinoctial*, D E the Tropicks, or ſome other *Parallel*; A B the two Stars which are turned in the ſame: and without further demonſtration it is evident to the eye, That if A riſe at the point D in the *Horizon*, paſs the *Meridian* at O, and ſet at E: the Star B moving in another part of the ſame Parallel ſhall do the like, and coming to an æquidiſtant ſituation with A from the *Meridian*, the Angle B O C ſhall be equal to the Angle A C O, being the Angles of Incidence to both Stars; by means whereof B ſhall of neceſſity reflect unto A, and A to B, which is of great moment in their operation, eſpecially to them to whom the ſame hapneth to be perpendicular. And here by the way we are to note, That by how much neerer the *Tropicks* this Parallelism doth happen unto the *Planets*, either amongſt themſelves, or with the fixed Stars, ſo much more effectual the ſame ſhall be, becauſe of the ſlow variation of their declination which will cauſe them to continue Parallel the longer together: whereas neerer unto the *Æquinoctial*

Paralelism why moſt effectual neereſt the Tropicks.

noctial it is of leſs moment, becauſe their declination varying ſwiftly, will alſo as ſuddenly vary their Paralleliſm. And thus much concerning the natural Reaſon of Intenſion and Remiſſion, which hapneth while the Planets and fixed Stars do thus follow and wait one upon another, and by means thereof imbrace and infold every thing whereon they ſhine, as if equal care were committed to both their charges, as they are carryed about by the wrapt Motion of Heaven.

CHAP. XVI.

Intenſion and Remiſſion by the riſing and ſetting of the fixed Stars and Planets.

NOw foraſmuch as the common *Axiome* teſtifieth, that Nature hath made nothing in vain, we may not think, that the reſt of the Stars which are fixed do ſtand for Cyphers, although it be true, that the action of every particular fixed Star be not ſo evidently diſcerned as the Planets. Neither (ſo far forth as we are able

The fixed ſtars cauſe no new alteration, and why.

able to attain by experience) do they cauſe any ſudden and unwonted alteration by themſelves, but rather by reaſon of their uniform Motion, and the ſame perpetual diſtance which they retain one to another, they work ſtill after one manner, ſaving when their virtues are accidentally ſtirred up by their 1. riſings and ſettings with the Sun, and the reſt of the Planets; or 2. when their Beams are united, either by Configuration and Parallel, or by 3. reflection in the ſame vertical Circle with them, at what time the quality of their impreſſion dependeth upon their Nature, which partly is meaſured by Experience, and partly confirmed by their Colour, as they reſemble the Planets therein. But the quantity of this Intenſion and Remiſſion is guided by their apparent Diameters or Magnitude.

In what caſes the fixed Stars do cauſe alterations.

How the nature and virtue of the fixed Stars is found.

The Ancients in their prediſtions much guided by the riſing and ſetting of the Stars.

And firſt, how much the Ancients have aſcribed to the riſing and ſetting of the fixed Stars, not only for diſtinction of *Times*, but alſo matters of *Phyſick*, *Weather*, *Navigation*, *Huſbandry*, and the like, is familiar to every man, though meanly converſant in *Philoſophy*, *Phyſick*,

ſick, *Hiſtory*, or *Poetry*, as well as in *Aſtronomy*. For ſuch was their skill herein (as *Theon* teſtifieth) that the Aſtrologers of thoſe times did hereby both limit and aſſign the beginning of the Seaſons, and the particular ſtate of the Weather for every day, foretelling which ſhould be fair, which rain and tempeſtuous; and again, upon what days every particular Wind did uſually blow. And thus reducing all *Metons* Circle of Years into Tables, they communicated the ſame to all the Cities of *Greece* for the common good. The truth whereof is not a little confirmed by *Ptolomy* himſelf in his Book *de inerrantium Syderum ſignificationibus*, (not that ſuppoſed on, ſet forth by *Leonicus*, but that which *Fredericus Bonaventura* of *Urbin*, not long ſince, tranſlated out of Greek into Latin) wherein, beſides experience of the *Egyptians*, he alſo recordeth the Obſervations of the moſt famous *Aſtronomers* before his time; as of *Doſitheus*, *Philippus*, *Calippus*, *Euctemon*, *Meton*, *Conon*, *Metrodorus*, *Eudoxus*, *Caſar*, *Democritus* and *Hypparchus*, for the place of their particular dwellings, even to the fifth

Com. in Arat.

which is the True Ptolomy *de ſyderum inerrant. ſignificationibus.*

fifth *Parallel*, passing by the midst of *Pontus*, where the longest day is fifteen hours and a half. Not without Reason then doth *Ptolomy* both here, as also in his *Quadripertite*, remit him that will judg of the particular Intensions and Remissions of every day unto the risings and settings of the fixed Stars; whereof, although he setteth down eight kinds, yet doth he reduce them all into two *Species*, *viz.* the *True*, and the *Apparent*; And if these, I see not that any of the *Astronomers*, before named, have had a regard to the first kind, but only those which are apparent: The first whereof *Ptolomy* reckoneth the Emersion, or *Matutine* oriental apparition; the second is (as he placeth them) the *Vespertine* oriental Apparition, which he calleth the last rising. In like manner there be two apparent Settings, whereof he calleth the first *Matutine* and Occidental, and the last *Verspertine* and Occidental, which is also their Orcultation. How far therefore those *Prognosticators* do err, who quite otherwise then the Ancients, did refer their yearly Judgments the true rising and setting of the Stars,

Li. 2. ca. 12

The apparent risings & settings of the fixed Stars necessary to the particular intensions & Remissions of the weather.

The ancient Astronomers only regarded the apparent risings & settings.

The Error of our Prognosticators.

Stars, omitting the apparent, I leave to their own cenſure, if they know not their Error before. But foraſmuch as thoſe that are ſupputated to one particular place will not agree the ſame day to every *Horizon*, let none from hence take occaſion to calumniate *Aſtrologie*, if the effects do likewiſe differ in divers *Horizons*; but rather let them learn for this Cauſe the more to admire the Art, for that from hence chiefly the true Reaſon doth grow, why in ſeveral Elevations the Weather is oft times differing upon the ſame day, ſeeing that in a ſmall difference of *latitude* both the Emerſions and Occultations may vary divers days; Wherefore the Effect muſt accordingly follow the Cauſe. The Reaſon why the apparent Riſings and Settings are preferred by Antiquity before the true, is not expreſſed by them, but leaning ſimply upon obſervation and experience, they commend the ſame in their Monuments to Poſterity, neither in truth was it neceſſary, ſeeing the Reaſon was evident in it ſelf. For who doubteth that the ſubſtraction or addition of Light may beget ſuch a new degree of temperature in the Air

The Reaſon why the ſame day is not alike in ſeveral Horizons.

The Reaſon why the apparent riſings and ſettings are moſt regarded.

Air, as is ſufficient to Mutation? As we ſee it often to happen in *Diſtillations*, where the alteration, though of a very ſmall heat, doth either perfect, or give impediment to the work. But whereas for the moſt part this Mutation turneth unto moiſture, this is purpoſely to be imputed to the great quantity of borrowed light wherewith they ſhine. For (as it is held in the *Perſpectives*) there is no doubt but that the Stars do as well reflect unto us the light of the Sun, as ſhine with their own proper light: Wherefore the Suns light being debilitated by reflection, doth heat imperfectly, being for that cauſe fitter to reſolve and cauſe moiſture to flow, then to conſume the ſame, being ſtirred. And here is further to be noted, That *Ptolomy* doth not require the apparent riſing and ſetting of all the fixed Stars; for it is clear in that Tractate of their ſignifications, that he neglected all, but thoſe of the firſt and ſecond Magnitude, whereof he giveth two Reaſons; one, becauſe the exact Emerſion and Occultation of the leſſer Stars cannot be obſerved, by reaſon that their weak light is not able to overcome the

Borrowed light, the reaſon why the effects of Emerſions and Occultations are for the moſt part moiſt.

The reaſon why Ptolomy regardeth not the apparent riſings & ſettings of all the Stars.

the twi-light, whereby the Arks of their Apparition being uncertain, the Apparition it ſelf cannot be calculated. The other Reaſon is, becauſe theſe more notable Stars are for the moſt part ſo conveniently ſcituated, as the Appearances of the leſſer, hapning much about the ſame time, are not ſo to be regarded, as theſe that are more illuſtrious. And thus (for example) he thinketh it enough to obſerve the apparent Riſings and Settings of *Arcturus* and *Spica*, though we paſs *Vindimiatricks* in ſilence; neither careth he much for the *Hedi*, or the *Vergiliæ*, or *Hyades*, ſo he obſerve *Hircus*, and the brighteſt of the *Hyades*. Wherefore *Ptolomy* hath not ſupputated theſe Apparitions for above 30. my ſelf coming ſhort of him by 6. For more of the firſt and ſecond Magnitude do not riſe and ſet to us, becauſe the declinations of divers do exceed the complement of our Pole; and therefore if the Sun be ſeptentrional they never ſet, as *Lyra*, *Lucida Perſei*, *Dexter humerus Aurigæ*, *Conda*, *Cygni*, and the like. Or if this exceſs be *Auſtral*, then they do never riſe of which kind *Canobus* and *Pes Dex-*

How many fixed Stars Ptolomy regarded, and why I fall ſhort of Ptolomy.

Dexter Centauri be, which are never seen above our *Horizon*.

CHAP. XVII.

Intensions and Remissions by Configuration of the Stars.

THe Causes hitherto mentioned, although they be very divine, and contain much excellency in them, yet they come all neerer the nature of Matter then this which followeth. For the manner of their operation did consist chiefly in a certain flux and emission of light continued down to these *sublunary* bodies, which although it be commonly thought without *matter* or *time*, yet it is not without the demensions of *Quantity*. For it is made by a *right line*; it is attenuated by the distance thereof from the *Star*; it increaseth or decreaseth with the face of the *Planet* it self; it is hindered by opposition of a *shady body*; and lastly, the visible presence of the Star admitted, it is necessarily presupposed also. Neither is this found in one and the same

In what respects the precedent rules of intension and remission come nearer the nature of Matter, then this now to be handled.

ſame ſingle ſtar, conſidered by it ſelf, but in compariſon alſo with others. As becauſe the *Sun* and *Moon* excel all other Stars in their viſible magnitude; therefore their action is moſt evident: but in the reſt, whoſe viſible *Diameters* are not comparable to the Suns or Moons, their efficacy is hardly ſenſible, and not to be attained without long experience.

This cauſe therefore which followeth and belongeth equally to the *Planets* and fixed *Stars*, is more noble, and to be admired then the other. For this favoreth nothing of *Matter*, but hath only conſideration of *Form*, not ſo much reſpecting the ſtreight beams of light which flow from every Star, as valuing and eſteeming how their Beams meet at the Earth between us and their Light; but both when they are hidden under the *Horizon*, and ſeem above the ſame, it maketh the efficacy of the Stars more notable over all the World, then at other times. Which kind of operation, if the Stars be ſwift in Motion, is in a manner but momentany; for that the Geometrical Angle being changed into

The Configurations of the Stars favour nothing of Matter, but only of Form, and therefore to be preferred before all other Cauſes.

another Angle that is improportionable and improper, immediately, or not long after, this efficacy also ceaseth, though the light of the Star at that time chance to increase. For which Cause I give not so much regard to the Aspects of the *Moon* with other Planets in the alteration of the Weather, as unto the Configurations of the *Planets* among themselves, or with the fixed Stars, whose motion being but slow in respect of the *Moons*, doth not so suddenly vary the Angle of their Configuration at the Earth.

From hence it is therefore that those Arks or Portions of the Heaven allotted unto the Aspects are not so much esteemed above all other Causes in *Astrological Judgments*. For although it be true, that in all Scituations the Stars send forth their Beams unto all the parts of Heaven and Earth which they behold, as may be argued out of *Vitellio* his *Demonstration*, by means whereof the Beams and Lines of true motion in every two Stars do retain a mutual respect one to another, and so do evermore intercept some Ark of Heaven, and concur at some Angle of the Earth,

Li 5. *Pro.* 22.

Earth, which may ſeem to make an Aſpect among themſelves: Yet nevertheleſs all the ancient and modern *Aſtronomers* following *Nature* for their Guide, have heretofore regarded theſe few Configurations only, being but five in all, namely the ☌, ✶, □, △, and ☍: amongſt which, although the firſt do not commonly go for an *Aſpect*, becauſe every *Aſpect* is reputed a proportioned diſtance between two or more Stars; yet nevertheleſs ſeeing a certain Poſition of the Stars in the Zodiack is rather conſidered in this Poſition, then any diverſity of place, and that the enumeration of the *Aſpects* ever beginneth from the Conjunction; Therefore as well in reſpect of this *Analogie*, as of the received uſe, it may not be ſecluded out of the Number of *Aſpects*, ſpecially knowing that the Beams of the Stars are as well extended upward and downward, as obliquely and collaterally.

But if any man deſire further to be ſatisfied of the Reaſon which firſt moved the ancient *Aſtronomers* to obſerve thoſe diſtances and Arks aſſigned unto the *Aſpects* as of more virtue then any other:

Surely the Anſwer is eaſie, ſeeing Nature it ſelf every where, both in the motions and effects of the heavenly Bodies, as alſo in other Arithmetical and Geometrical reſpects, chiefly celebrateth theſe very proportions with a ſingular Prerogative. *Picus* ſpeaking hereof, thinketh they were firſt induced hereunto by obſerving the ſeveral illuminations or ages of the *Moon*, for that when ſhe is *new*, *horned*, in her *quarters*, *gibboſſity*, and *fulneſs*, her forms are ſtill changed at theſe proportioned ſpaces from the Sun. Beſides which, it is not to be paſſed in ſilence, which others have more particularly noted, that in her annual Revolution ſhe is ſtill found about the △ of her own place in the beginning of the former year. Neither have other *Aſtronomers* failed to note, how *Nature* pointeth (as it were with a finger) particularly unto every Configuration, while we conſider the motions of the other Planets. For thus *Abohazer* wittily affirmeth the two inferiour Planets in their Stations to obſerve the Ark proper to a □ aſpect. *Plinj* likewiſe with him as skilfully commendeth unto us the obſervation of the

Nature hath as it were firſt alured us to obſerve the Aſpects by ſpecial tokens, or ſecret marks in the Motions.

Li. 2. ca. 37.

△

△ by the ſtations of the three ſuperior Planets. But above all it cannot be conſidered without deep admiration, how Nature hath ſingularly nobilitated all the *Aſpects* in the Motions of *Saturn* and *Jupiter*. For as their Conjunctions are rare, and but once in 20 years, ſo hath Nature evermore diſpoſed theſe Conjunctions in the moſt memorable places of the *Zodiack*, That is only in ſuch Signs as behold one another in an *æquilater triangle* inſcribed. For between any two great Conjunctions of *Saturn* and *Jupiter*, there are 19 *Ægyptian* years, 318 days, and 13 hours, in which time thoſe *Planets* are moved from the place of their former Conjunctions 8 ſigns, and almoſt 3 degrees, which exceſs of 3 degrees is the cauſe why after 10 Conjunctions they paſs from one *Triplicity* to another, and one *Triplicity* continueth 198 equal years, 265 days (the intercalary day of every fourth year omitted) and 10 hours. But the Revolution of all the *Triplicities* is finiſhed but only once in 794 equal years, 331 days, and 16 hours. Or otherwiſe, in 794 *Julian* years, 133 days, 16 hours; the double whereof

The Reason why the year 1588. was reputed so fatal.

cometh to 1588, which number of years they are thought to have respected, that imagined the year 1588. from the birth of Christ would have been so fatal. From hence therefore it is, that not without cause they are called great Conjunctions, both happning rarely, and abiding thus in one Triplicity almost 200 years together, and not finishing all the Triplicities of the *Zodiack* in much lesser then 800 years, not having therefore reiterated all the *Triplicities* 8 times since the beginning of the World. Neither are the other Positions of these *Planets* to be neglected; for if any man will take the pains to observe when *Saturn* and *Jupiter* do behold one another with a □ or ☍ aspect, they shall evidently perceive that they still carry such a regard unto the signs or places of their precedent and next Conjunctions, as evermore they irradiate the one and the other with a ✶, □, △, or ☍ aspects. And so this shall suffice (if it be not more then enough) to shew how Nature hath alured us to the Consideration of these *Arks* by these *Aspects* in the particular Motion of the *Planets*.

And

And now in a word to confirm the ſame by their virtue and effects: Firſt, The *Phyſicians* are taught by experience, That the *Criſis* of all ſharp diſeaſes have a notorious and moſt memorable *Sympathy* with all theſe five Configurations of the ☽ to the place of her Being in the beginning of the ſickneſs. Thus alſo we ſee the Seas themſelves in their Tydes to dance as it were after the motion of the ☽, while their Spring and higheſt Floods always concur with her ☌ and ☍ to the *Sun*, as their Neaps and loweſt Tydes do likewiſe reſpect her Quarters. And as memorable a thing it is, that the Seas in their dayly flowing and ebbing upon every Coaſt, have ſtill a conſtant reſpect only to ſuch *Azimuthal* Circles as are in a quartile poſiture when the ☽ paſſeth by them. To conclude, it is more manifeſt then that I need to inſiſt upon it, that the *Sun* it ſelf ſeemeth greatly to reſpect the □, in that he moderateth the viciſſitudes of four quarters of the year by his ingreſs into the four *Æquinoctial* and *Tropical* Points. *The aſpects confirmed by their effects.*

But now to deſcend to other Speculations of the learned more myſtical then

The Signs whereof the Aſpects conſiſt the only aliquate parts of a Circle.

theſe, it is not amiſs to begin with the *Arithmetical* Obſervation which *Julius Firmicus* maketh of the number of *Signs* agreeable to the *Aſpects*; 1, 2, 3, 4, 6, anſwering in order to the ☌, ✶, □, △, & ☍: for theſe numbers only, and none other, will divide the *Zodiack*, conſiſting of twelve *Signs*, for which reaſon he maketh them the only *aliquate parts* of a Circle. Thus alſo the famous *Ptolomy* addeth not a little to the dignity of theſe *Irradiations*, when he firſt obſerved the *Geometrical* proportion, which the *Subtenſes* of every of theſe Arks do retain in power to the *Diameter* of a Circle, as every man may read in the *Quadripartite*. Others again, with no leſs ſubtilty, have obſerved, that amongſt all regular or ordinate figures that may be inſcribed in a Circle, though the ſame be infinite, there are none whoſe ſides and angles carry away the Prerogative both at the Circumference and Center, but thoſe whoſe ſides and angles are anſwerable to the Subtenſes and Arks of their *Aſpects*. For thus amongſt all *ordinate plains* that may be inſcribed, there are no two whoſe ſides joyned together

The Subtenſes of the Aſpects proportionable to the diameter of the world. Li. 1. ca. 22. lege Cardane Comentar.

The Subtenſes of thoſe Arks which are proper to the aſpects joyned together only take upe circumference of the Zodiack.

gether have preheminence to take up a *ſemicircle*, but only the *Hexagon*, *Quadrate*, and *aquilateral triangle*, anſwering to the ✶, □, and △, irradiated. The ſubtence therefore of a ✶ aſpect conſiſteth of two Signs, joyned to the ſubtence of a △, compoſed of four, being regular and æquilater, take up ſix Signs, which is a compleat ſemicircle. In like manner, the ſides of a *Quadrate* inſcribed, ſubtending three Signs, twice reckoned, do ocupy likewiſe the mediety of a Circle. And what thoſe Figures are before ſaid to perform, either doubled or joyned together, may alſo be truly aſcribed unto the oppoſite aſpect by it ſelf, for that the *Diametral* Line, which paſſeth from the place of Conjunction to the oppoſite Point, divideth a Circle into two equal parts, the like whereof cannot be found in any other inſcripts. For example, the ſide of a regular *Pentagon* ſubtendeth 72. degr. of an *Octagon* but 45. the remainders of which Arks, *viz.* 108. and 135. gr. are not ſubtended by the ſides of any ordinate figure.

And thus, as it is before ſhewed, That the Subtenſes of theſe Aſpects be the

ſame

The Angles of the Aſpects, viz. the △, □, ✱, the ſame wherewith the aforeſaid ordinate plains ocupy place about a Point, and therefore do proportionably alſo take up the Center of the World.

ſame with the ſides of the fore-remembered Inſcripts, and do only therefore take up the Circumference of a Circle: So it is evident, that the Angles at which they concur be the ſame wherewith the ordinate plains take up the whole ſpace about the Center. For if we conſider the Angle of a ✱ at the Earth, it is all one with that of an æquilater Triangle conſiſting of 60. gr. and containeth $\frac{2}{7}$ of a right Angle, but ſix times $\frac{2}{7}$ of a right Angle makes four right Angles; wherefore ſix *Sextiles* equal to ſix æquilater Triangles fill the whole ſpace about a point, which is eqaal to four right Angles. Secondly, Every Angle of a *quartile* is a right Angle, and all one with the Angle of *rectangle Quadrilater* figure, wherefore four of them fill a whole ſpace. Thirdly, The Angle which two Stars in a △ make at the Center of the World, is meaſured by an Angle of 120. gr. and ſo equal to the Angle of a regular *Hexagon*, conſiſting of a right Angle, and $\frac{1}{3}$ of a right Angle, and therefore taken three times maketh four right Angles: Wherefore three æquilater *Hexagons*, or three △ Aſpects, do alſo fill the whole ſpace about

about the Center: To which me may not improperly add the oppoſite Aſpect, conſiſting of two right Angles, and therefore doubled, ſhall perform the like office with the reſt, any other figure of many Angles, however joyned together at the Angles, ſhall either want of four right Angles, or exceed them. For example, the Angle of a *Pentagon* containeth a right Angle, and $\frac{1}{5}$ more; wherefore three ſuch Angles placed about a point, ſhall fall ſhort of four right Angles by $\frac{2}{5}$ of a right Angle; as on the other ſide, four ſuch Angles ſhall exceed four right Angles $\frac{2}{5}$.

Theſe Speculations therefore conſidered, it were ſenſleſs to imagine, that Nature hath ſo many ways honored theſe Irradiations of the Stars in vain, and admoniſhed us to a ſpecial regard of them by ſo many rare and ſecret Obſervations, both in the motions of the Planets, and alſo in their effects and proportions, if they were not indued with more virtue then others. Wherefore it hath no leſs exerciſed the learned to find out the Reaſon why theſe few Configurations, ſelected out of an infinite number, ſhould

be

The first Reaſon why theſe few Configurations are more effectual then others which be inſtaite, being drawn from the harmonical proportion.

be indued with ſuch eminent efficacy. Neither as yet hath any reaſon been invented, with more applauſe for the probability thereof, then that theſe proportions, whereof the Aſpects are before ſhewed to conſiſt, be the ſame which are found in harmonical Concords; for which cauſe it is alſo thought no leſs probable, that the light of the Stars in theſe proportioned diſtances ſhould powerfully affect the matter of *ſublunary* things, then that the like *Geometrical Symmetry* in ſounds and voyces ſhould paſſionately ſtir up the ſenſe of the hearer. For to confeſs the truth, ſo hath the admired providence of Nature ordained throughout all her works, that where due proportion is not wanting, there ſhe never faileth to endue all her effects with ſuch height of perfection, that the ſame becomes evident to the eye of every man. And from hence it is even in artificial Compoſitions alſo as in Medicines, we know thoſe only to be moſt kind and ſoveraign which obſerve a competent *Symmetry* or temperature of the *Active* and *Paſſive qualities*; with good likelihood therefore, and appearance of truth, do

do moſt of the learned, with *Ptolomy* in his *Opticks*, reſolve the only cauſe of this efficacy to proceed from harmonical proportion. *Ptolomy in Cateptrics*

And more clearly to expreſs this ſimilitude or affinity between the proportions of the Aſpects, and the like diſtances obſerved in the Muſical Concords, we muſt underſtand, that all Harmony whatſoever ſpringeth originally from three ſuch terms of numbers as reſpect each other in ſuch ſort, that ſtill their differences retain the ſame proportion that is found between the extreams. For example, in theſe three Nnumbers, 6, 4, 3, (anſwerable to the Signs of the ☌, △, and □ Configurations) here it is evident, if we compare the extreams with the mean, that 2. ſhall be the difference between 6. the firſt, and 4. the ſecond Number; and 1. is in like manner between the middle or ſecond, and 3. the third Number: but 2. is double in proportion to 1. therefore 6. the firſt number reſpecteth 3. the third number with the like proportion. The *Analogie* of which Proportions, as is before remembered, is found to be the fountain of all Muſick, riſing originally from *How the Proportions which the aforeſaid Irradiations retain in reſpect of themſelves, anſwer the Concords in Muſick.*

Diapente, Diatessaron & Diapason, the 3 perfect Concords,

from these three simple concording distances, which by the Musicians are called *Diapente*, consisting of a Sesquialter *Proportion*, as 6. to 4: or which is all one of 3. to 2. *Diatessaron* of a *Sesquitertia*, as 4. to 3: And lastly, *Diapason* consisted of a double proportion, as 6. to 3. or 2. to 1. and is as much in value, as both the 2 first distances and proportions put together: For a *Sesquialter* added to a *Sesquitertia*, according to the art of Proportions, do produce a *Diapason*, or double proportion, such as is found between the former extreams compared together, *viz.* 6. and 3. And in like manner, by comparing the *Diapason* with both these his parts, that is, with the *Sesquialter* and *Sesquitertia*, according to the usual manner of supputating Proportions, we are brought to the two other compounded or imperfect Concords, so constituting the 5. first and natural Distances in harmonical Sounds, which afterward, as they be diversly mixed between themselves, produce infinite variety of all kind of Melody.

Diapente & Diatessaron are parts of a Diapason. Diapason severally compared with each of his parts makes up the 2 other compounded or imperfect Concords, viz. Diapason cum Diapente a Triple, & Diapason cum Diatessaron a Quadruple, or Bis Diapason.

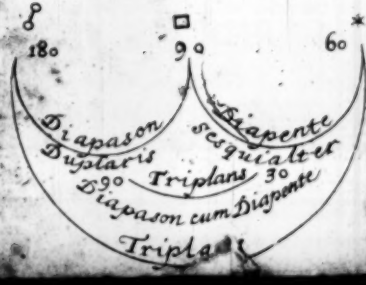
After the same manner fareth it with the light and influence of Heaven. For al-

although anciently there be but 5 Irradiations observed as most apt to action, namely the ☌, ☍, △, □, and ✶; yet nevertheless there is nothing more sure, then that by the harmonical mixture of these proportioned Beams, the generation and corruption of this mortal world is infinitely varied. Wherefore as the force of all Harmony, so likewise the effectual reason of all action in the influence of the Stars, is properly deduced from the foresaid *Symmetry* of these distances. And therefore more fully to illustrate, that the Angles of the Aspects, compared between themselves, concur with these Harmonies in Musick, it will be no hard matter, if that which before hath been often repeated be called to mind: As that first, the Stars in an opposite or diametral aspect are dis-joyned by the space of two right angles, which are measured with the Ark of 6. signs, or 180. degrees of Circumference, and that the △, consisting of 4. signs, or 120. degrees, is in value one right angle, and ½ of a right angle: Also that the □ taketh up one intire right angle, and is subtended with the Ark of 3. signs, or 90. degrees. And lastly, that the ✶

The Angles which the Aspects do make at the Earth, are proved proportionable to the Concords in Musick.

* is constituted but of 2. signs, or 60. gr. which is ⅓ of a right angle; which being thus, if we now so compare the two right angles of the ☌ taken together with the angles of the rest of the aspects, either the △ be placed between the ☌ and the □, or the □ between the ☌ and the *, we shall find either way three numbers, which admit all the Laws of harmoniacal Proportions, as in these Figures following is evident.

The first Figure proves the 2 Concords to have 3 perfect Aspects.



The second shewes the * to be an imperfect Aspect, agreeable to Diapente cum Diapason, that is, triple [illegible], as 90. is to 30.

Where, to let the reſt paſs as plain enough of it ſelf by that which is before ſpoken, we are further to note, That the ♂, compared in the laſt figure of thoſe two with the ✳, hath a triple proportion to the ſame, compounded of a double and *ſeſquialter* proportion, as *Diapente* with *Diapaſon* in Muſick is, and ſo is found no ſimple or perfect Aſpect, but exactly anſwerable to B flat, the firſt imperfect or compounded Concord in Muſick being a ſixth from G *Sol re ut*, which nevertheleſs in ſome reſpects is after a ſort eſteemed perfect, becauſe it uſeth the ſame diviſion compared to D *ſol re* that the perfect Concords do, for it is half a Fifth, and ſcituate in the middle between Γ *ut* and D *ſol re*. As alſo the ✳ compared with the △ is a juſt half thereof, which before hath been ſhewed to be in a *ſeſquialter* proportion to the ♂, as D *ſol re* is to Γ *ut*, and therefore exactly agreeable to a *Diapente* in Muſick, which the rather I here note, becauſe we ſhall have ſome uſe thereof afterward in ſpeaking of the new Aſpects. And thus much ſhall ſhortly ſerve for the *Theory* or Philoſophical ſpeculation of them that a-

B flat, why after a ſort a perfect concord, & ſo by the ſame Reaſon why a ✳ may be admitted a perfect Aſpect.

New Aſpects after handled.

scribe the efficacy of these Irradiations to the harmonical proportion which is found between them. Wherefore seeing they carry the same mutual respect one towards another, which the foresaid Harmonical Concords do retain between themselves, what wonder is it if Nature in her operations, as well by lights as by sounds, admitted no other *Symmetry*, but that which is derived from these proportions, rejecting all other as irrational and discordant?

Keplers Reasons why the foresaid harmonical proportions are so effectual drawn from the Symmetry of the World, being the same that is found between the 5 Regular Bodies inscribed one within another.

Yet all this hitherto doth rather illustrate a *Simili*, and doth more and more express unto us, that Nature indeed hath adorned these proportions with singular priviledges above any other, then satisfie us with the true Reason, why in the infinite variety in Sounds and Lights these only should consent most sweetly in Musick, and be effectual in the operations of Nature. Neither hath any man herein endeavored with more probability to give satisfaction unto the learned then *Kepler*, who having wittily laboured to demonstrate, That God in the Creation of the World hath observed the same proportion in the Magnitude and distance of

of the heavenly *Spheres* which is found in the regular *Solides*, which (as *Geometry* teacheth) have their Original from the Ordinate Playns: In the end concludeth with good probability, That the heavenly Motions ſhall then conſent ſweetly, and co-operate ſtrongly together, when the nature of theſe *ſublunary* things, indued (as he ſuppoſeth) with a ſenſitive or knowing faculty, apprehendeth the Beams of the Stars to obſerve that reſpect in their concurrence at the Center of the Earth, which anſwereth unto the Ordinate Playns, from whence the *Regularity* of theſe proportions is derived, as the impreſſed *Characters* of that *Symmetry* which *God* is ſaid to have uſed in the Creation of the World it ſelf. So imagining, that as often as the nature of any thing meeteth with theſe proportions, it exerciſeth it ſelf as it were by this *Idea*, which retaineth ſtill, and that in ſuch ſort, as what it doth but ordinarily and ſlackly at other times, it performeth now much more effectually, and as it were with extraordinary diligence; Not (ſaith he) that theſe proportions work any thing of their own virtue; for in

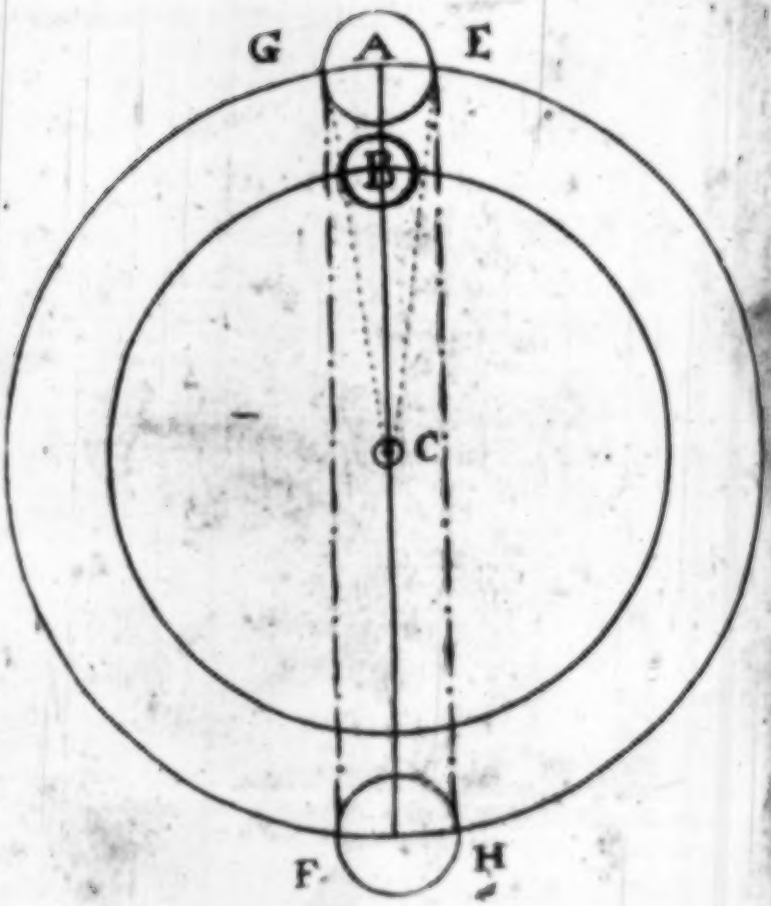
Muſick it is neither the Sounds, neither the proportion of the Concords, that work any thing of themſelves, or beget any delightful humor in a man, but the Soul approaching to the Inſtruments of Senſe, firſt there entertaineth the ſounds inwardly, then valueth their proportions, and (finding the ſame good and *Geometrical*) laſtly exhilarateth it ſelf, and moveth the body wherein it is, as with an Object wherein it taketh delight. And ſurely were theſe proportions ſet down by *Kepler* exactly found in the *Symmetry* of the World, then I could the better give ear unto him, and believe this Myſtery to reſt in that which he hath ſaid. But he himſelf having inſcribed the ſeveral *Spheres* of the Planets within the *Regulare* bodies, in the end findeth their diſtances from the Center of the World to differ very much, both in *Jupiter*, the Earth (which he ſuppoſeth to occupy the *Suns* place,) and *Mercury*, from that which *Copernicus* and other *Aſtronomers* do ſet down by obſervation. I love not (after the expectancy of *Geometrical* demonſtration, though he come near in ſome) to feed my ſelf with Fancies

why Keplers opinion fully leaveth me unſatisfied.

in

in the reſt: neither can I well conceive, in that poor underſtanding which I have in *Philoſophy*, how Configurations, conſiſting only of intelligible Angles, ſhould be objects to any ſenſitive power; or how the ſenſitive power, which he doth imagine in the Elements, and all elementary things, ſhould apprehend without organical Inſtruments. Yet nevertheleſs (leaving this Conceit of *Keplers*, without prejudice of his Conceit or Judgment, unto others of riper Judgment then my ſelf) I will as perſpicuouſly as I can deliver that which my ſelf have further conſidered as the Reaſon why theſe Beams ſhould be more effectual then others. And firſt concerning the ☌ and ☍, I held my ſelf abundantly ſatisfied with the union of Beams, which therefore are the moſt potent and powerful Configurations of all others, as is evident in this Figure, where we ſee the Beams, as well incident as reflected, to be united.

A ſecond Reaſon why theſe Aſpects are ſo effectual, and firſt of the ☌ & ☍ whoſe virtue proceedeth chiefly from union of Beams.



For let A be in ☌ here with B, it is first manifeſt, that all the Beams flowing from G and E, the points of touch in the Circumference of A ſhall unite themſelves with the Beams that art ſent from B to C the Earth or Center of the World. Secondly, We are alſo to obſerve, That in this Caſe only the Beam A C, or B C coming

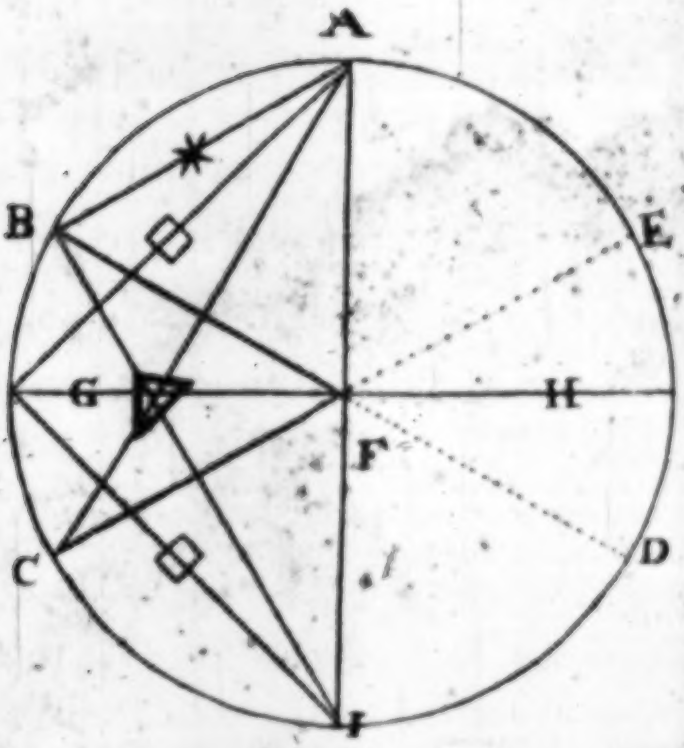
coming from the Center of the Stars reflecteth into it ſelf, as being only perpendicular, whereas thoſe Beams which are ſent from the points E and G make an acute Angle at C, and do therefore reflect the one into the other at equal Angles, as G C reflecteth from C to E, and E C from C to G; laſt of all the union that hapneth in ☌ is manifeſt without any circumſtance, where the Beams ſent from the oppoſite Points make but one ſtreight line, as G F, and E H in this Figure, except in Caſes where the Earth is bigger then the Star in oppoſition, for there without latitude the union of their Beams muſt needs be hindered by interpoſition of the Earth. For which cauſe it is ſpecially here to be remembered in the ☌ of the two inferior Planets with the Sun, that if this happen in the *Apogæon* of their *Epicycles*, their ☌ ſhall not be of that efficacy or force, as when they are in *Peregæo:* becauſe (according to the *Hypotheſis* of *Tycho* and *Copernicus*) they being above the Sun, and the Sun much bigger then they, the Sun ſhall return all their Beams to themſelves from the Earth, ſo that their

In what caſe the union of two Stars in ☌ and ☍ is hindered.

The ☌ of Venus and Mercury not ſo effectual in Apogæo, Epicycli, as in Perigæo.

union by this means ſhall be interrupted and fruſtrate.

In like manner, in my contemplation for help in the Configuration of the ✶ and △, I found that which did reaſonably give me contentment, becauſe in the concurrence of their Beams at the Earth I found a mutual Reflection of the one into the other, and ſo an Union by Reflection.



For

For admit A B C to be three Stars, A and B in a ✶ Configuration, A C in a △: Then for ſo much as B F, the Beam incident of the ✶, falleth obliquely in reſpect of A F, and maketh an acute Angle therewith, it is evident to thoſe that have any mean underſtanding in the *Opticks*, that B F ſhall reflect to C, and ſo be united to C F, the incident of the Star C, which is in a △ Configuration with A: as alſo C F ſhall for the ſame Reaſon reflect to the Star in B, and be likewiſe united with B F, the incident of the Star at B. Behold here by the way the grounds of that familiarity which *Ptolomy* noteth in theſe Arks of Heaven, when he conſidereth the Poſition apt for the *Aphæta* of life, or the Houſes of the Figure. And thus far me thought I purſued the Reaſon of that virtue which is found in the Aſpects with good encouragement, that I ſhould have found their force to depend upon Union or Reflexion. But when I come to conſider of the Quartile, whoſe Beams only cut each other *ad angulos rectos*, and ſo reflect into themſelves, after much deliberation with my ſelf, finding all aid of the *Opticks* to fail

union by Reflection between the ✶ and △ demonſtrated, and the familiarity of theſe points of Heaven mentioned by Ptolomy *declared.*

The Reason of the efficacy of the □ not depending upon Reflection or union.

fail me, I was forced to say with *Offusius*; *Ingenue fatebimur causam talis effectus nos demonstrare non posse: id tamen verissimum esse tam diuturna observatione compertum habemus, ut eadere dubitare puderet.* Wherefore recounting with my self some of those Speculations before remembered, and specially that *Theoreme* which prove the Angles of the ✶, □ and △ to be only proportionable in taking up the Center of the World; the more I considered thereof, the more I find my self confirmed, that the mystery or secret of these Configurations resteth chiefly in this, that these only Irradiations, and those that are derived from these, are proportional unto all patible matter, and therefore more effectual.

The third Reason why these aforesaid Irradiations are of such virtue proved to depend upon their proportionable taking up of the Center of the World by their Angles, whereby they must needs shine upon all Elementary matter with a due and even mixture of light & influence.

For that these Irradiations only are every way proportionable is before abundantly proved, whether we respect the taking up of the Circumference, the power and proportion of their Subtenses unto the *Diameter*, or lastly and principally,

pally, the occupying of place at the Center of the World. Which Prerogatives ſeeing no other Arks, Subtenſes, or Angles do enjoy: therefore I conclude theſe above all others to be proportionable, which is neither *defective, interrupted*, nor *redundant*: but ſuch are the Arks, Subtenſes and Angles of thoſe Irradiations, and none other; *Ergo*, theſe and none other are proportionable. Now as that which is defective, and wanteth proportion, leaveth the action fruſtrate, and without effect: ſo that which on the other ſide offendeth in exceſs, muſt needs incur the contrary fault, and overcharge that which either Nature or Art intendeth, whereby of neceſſity it will follow, that there being no defect, nor exceſs, but an equal and juſt mixture of the influence of the Stars in theſe Irradiations, theſe only ſhall be apt and convenient to produce agreeable effects in the matter of all *ſublunary* things. For it fareth in theſe effects, which are produced by the mixture of Light and Influence, as with *Chymical* Operations, where the defect of heat produceth nothing; as on the other ſide exceſs doth either

either by *Sublimation*, *Eruption*, *Vitrification*, breaking the Veſſel, and the like, deſtroy the work. And to make it yet clearer, how the Beams of any ſuch Stars do proportionally take up the Center of the World, whereas, in that which went before, I have only ſhewed how the Points of thoſe Ordinate Playns, whereunto theſe Configurations have been compared, often reiterated, do take up place.

The Reaſon why any 2 Stars in Configuration ſhall take up all elementary matter at the Center with proportionable Angles made by their Beams, incident, reflected, or oppoſite.

Now will I ſet forth how the Beams of any two Stars in any one of the former Configurations ſhall take up more ſpace, then that which is comprehended between their Incidents or Beams of true motion, and how by their Beams, either incident, reflected, or oppoſite, they do poſſeſs, and take up the whole Center of the World at one inſtant with proportionable Angles. For evident demonſtration whereof concerning ☌ and ☍, (whoſe force rather dependeth upon union then proportion) I need no further labour, then to refer the Reader to the view of the laſt figure but one, where he ſeeth the united Beams of ſuch Stars as are in ☌ & ☍ to ſurround the Center, and all

elemen-

elementary matter whatſoever ſubject unto the actions of Heaven. And ſo for the □, whoſe Beams incident and oppoſite, traverſe the Center of the World at four right Angles, *viz.* AFG, GFI, AFH, and HFI; ſeeing four Points of a rectangle quadrilater figure hath been before proved to occupy place, I likewiſe need no other proof, then that the Reader will in the laſt figure conſider how theſe four right Angles made by one *Quartile* take up the Center of the World. But concerning the △ and ✳, although the like be evident enough to any of mean skil, yet nevertheleſs there are ſome other ſpeculations which require a word or two more. For in the laſt figure ſuppoſe two Stars A & B irradiate the earth with their ✳ Beams, although it be true, that by the protracting of the oppoſite Beam from F to D, the Center of the whole World ſeemeth occupied with proportionable Angles, BFA being ſubtended by the Ark of 60. which is before declared to be the Angle of an ordinate *equilater triangle*, and ſo leaveth the outward Angle BFI equal to the Angle of an ordinate *Hexagon*, ſubtended here by

the

the Ark 120, which is the Ark of a △; the like being alſo to be underſtood of the Angles made by the oppoſite Beams *ad verticem*. Yet nevertheleſs we are here further to conſider, how the incident Beam of B, *viz.* B F, reflecteth unto C, and ſo taketh up the whole *Semicircle* A B C I, with three ✳, *viz.* A F B, B F C, and C F I. In like manner, if we conſider C to be in a triangular Configuration with A, we ſee that as the oppoſite Beam of A, *viz.* F I, maketh a ✳ with the incident Beam of a Star at C, *viz.* C F; ſo C F being the Beam incident of the Star C reflecteth alſo to the Point B, and ſo maketh the ſame three ✳, wherewith the aforeſaid whole *Semicircle* is taken up, as is before demonſtrated. Wherefore this may ſatisfie the indifferent, how any two Stars in any of theſe Configurations do proportionably ocupy the whole Center of the World in the ſame moment, without reiterating the ſame Angle.

And becauſe hitherto we have ſpoken only of the old Configurations, known to the ancient *Aſtronomers*, I may not forget to ſignifie, that in theſe our days our late Artiſts (whereof *Kepler* is the chief)

chief) have added unto theſe former Aſpects three others, *viz.* the *Quintile*, conſiſting of 72 degr. the *Biquintile* of 144 degr. and the *Seſquiquadrate* of 135 degr. ſo making 8 Configurations anſwerable to 8 Conſonant Stops in a *Monochord*. Neither dare I for my part contradict theſe new additions: For having made trial as wel in the ſpeculations of the Weather & Meteors, as in the accidents of Nativities, I dare boldly affirm, That there have divers events and effects concurred with theſe new Configurations, for which, without theſe Conſiderations, we can find as yet no Reaſon in *Aſtrologie*: Neither wanted they true grounds of Reaſon for this their Obſervation. For as in Muſick there be but 3 perfect Concords, *viz.* the *Diapaſon*, *Diapente*, and *Diateſſaron*; ſo in *Aſtrologie* there are but 3 perfect Aſpects anſwerable to the foreſaid *Harmonies*, namely the ☌, the △, and the □, the ✶ being accounted, and ſo proved before to be but an imperfect Aſpect, anſwering exactly to B flat, the firſt among the imperfect and compounded Concords. Wherefore conſidering that the firſt 3 perfect Concords

Three new Aſpects, viz. *the* Quintile, Biquintile & Seſquiquadrate *added by* Kepler, *and the Reaſon which drew him to this Obſervation, ſo making 8 Aſpects in all anſwerable to ſo many diviſions of a* Monochord.

cords are found to have their perfect Aſpects anſwerable unto them, and that B flat being an imperfect Concord is alſo found to agree exactly in proportion with the *, being an imperfect Aſpect: This gave *Kepler* firſt cauſe to ſuſpect that the other Harmonical Proportions contained in the ſame *Monochord* might alſo have their Aſpects, *viz.* the *Quintile*, *Biquintile*, and *Seſquiquadrate* anſwerable unto them; wherefore although as yet I have not entered into any other *Geometrical* Speculation, why theſe diſtances are alſo effectual in operation as well as the former, thus much for this time may ſuffice, both for the occaſion of their firſt invention, as alſo for their probability to be obſerved in practiſe.

And now having thus diſcourſed at large of the Dignity, and diverſe Reaſons of theſe Aſpects or Configurations, which are ſo powerful in operation, I ſhall conclude with this deſire, that two things more may be further noted.

Firſt, That we are not only to regard theſe proportioned Diſtances among the *Planets*, but alſo of the *Planets* with

with the *fixed Stars*. Which *Speculation* as it hath been heretofore omitted by others, either through loathneſs to calculate the Aſpects of the *fixed Stars*, or through neglecting them altogether; ſo undoubtedly it hath been no ſmall cauſe, why our *Prognoſticators* have failed in their Judgments by omitting a principal part of their Direction.

And ſecondly, That where we finde plenty of Aſpects, eſpecially coming together, it is a manifeſt Argument, that plenty of matter ſtirred up will follow, which will cauſe great alteration of the Air apt for the Seaſon.

AN

Astrological Judgment

UPON

The great Conjunction of *Saturn* and *Jupiter* 1603.

being its first Entrance into the *Firy Trigon.*

Sent by way of Letter from Sir *Christopher Heydon* Knight, to Doctor *Foster.*

SIR,

UPon the 3 of *Decemb. An.* 1603. being desirous (as the Weather would give leave) to observe the places of *Saturn* and *Jupiter,* that thereby I might attain unto the true time of their ☌ at hand, I fitted my

my ſelf as well as I could in the morning about 7 of the Clock to take their Diſtances: but at that time the Air being cloudy, and the Heaven only favorable about the *Horizon*, I could perceive *Jupiter* only in his Matutine Emerſion, newly appearing out of the Sun-beams, but *Saturn* at that time was not to be diſcerned by the youngeſt eye there. Wherefore I only at that time obſerved *Jupiter* his diſtance *a lance Meridionali*, 27. gr. 33. m. 30. ſec.

The place of *Lanx Merid:* according to *Tycho*, was then 9. gr. 33. m. 30. ſec ♏.

Wherefore ſeeing *Jupiter* his latitude by the *Ephem:* was 54. m. *Sept.* and the latitude of *Lanx Merid:* 26. m. *Sept.* agreeing thus in the denomination of your latitude, and ſo near the *Ecliptick*, it is evident that *Jupiter* his place was *quoad longitudinem*, without more Calculation, 7. gr. 7. m. ♐.

The three day following, *viz.* 4, 5, and 6. were very foul and ſtormy, but the ſeventh being froſty in the morning, gave me reaſonable opportunity to attend this buſineſs again, at what time we beheld both *Saturn*, *Jupiter*, and *Mercury*

cury in an *Iſoceles* triangle almoſt, pleaſantly repreſenting the beginning of the firy *Trigon*: But the day being broken, and the Sun approaching apace, we were fain to take ſuch Obſervations as we could of *Saturn* and *Jupiter*, and let *Mercury* alone.

Wherefore, hor. 7. m. 25. I obſerved *Saturn* to be diſtant from *Lan: Meridional* 28. gr. 24. m. 30. ſec. *bis*.

And *Jupiter* from the ſame fixed Star twice alſo, hor. 7. m. 40. -- 28. 24. 30. at what time *Saturn* his light, contending with the breaking of the day, was very weak; therefore we began with him, and ended with *Jupiter*: and by this Obſervation I then concluded, That I thought it the Will of God I ſhould have opportunity to obſerve the true moment of the great Conjunction, which, as appeareth by theſe diſtances, happened in the 7 gr. 58 m. of ♐, for otherwiſe they could not both have had equal diſtance from the ſame fixed Star, lying parallel in effect with them to the Ecliptick.

I alſo obſerved both *Saturn*, *Jupiter* and *Mercury* upon the ſixteenth day,

Hor.

Hor. 7. m. 15. *Saturn* from the ſaid Star 29. g. 28. m. *paulo plus*, 9. g. 1. m. ♐.

Hor. 7. m. 15. *Iupiter* from the ſame Star 30. g. 22. m. 30. ſec. --9. g. 55. m. ♐.

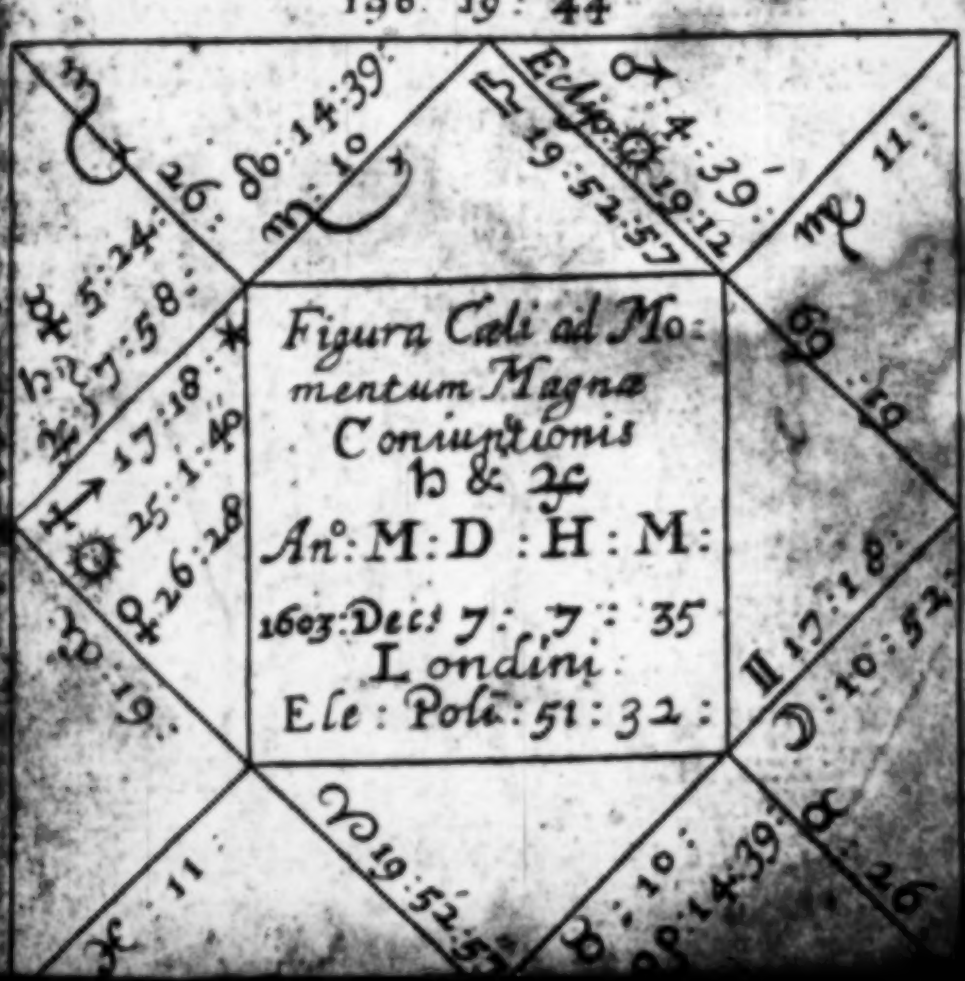
Hor. 7. m. 27. *Mercury* from the ſame Star 32. g. 18. m. 0. ſec. --11. g. 51. m. ♐.

All which Obſervations I ſet down, to the end you may compare them, hopeing you ſhall find they will rather confirm then derogate from the place and time of this great Conjunction of *Saturn* and *Iupiter*: yet, to ſpeak ingenuouſly, not truſting my Obſervation more then I ſhould, partly becauſe the day-light would not ſuffer us to obſerve other fixed Stars with the Planets, and partly by reaſon of the ſlow motion of *Saturn* and *Iupiter*, I layd them aſide till after peruſing *Kepler de Stella Nova*, I was the more encouraged to make account of my Obſervation: for I found in pag. 48. that he, by ſuch Obſervation as he could make, conſtituteth the time at *Prage* to be the 7 day, 8 hor. and 20 min. although afterwards he ſhew as little confidence in the hour as my ſelf did before, I was confirmed by his Obſervation. Wherefore if the *Meridians* be compared, the

difference of time between his Obſervation and mine is not above 13 m. which is not worth the ſpeaking of, and may happen as well by the Error of *Longitude*, as of the Obſervation. For the *Longitude* of *Prage*, as *Tycho* noteth in his *Progymnaſmata* pag. 131. is 38. gr. 0. m. And the *Longitude* of *London* in Mr *Cambdens Britannia* is 23. gr. 25. m. the difference is 14. gr. 35. m. which wants but 2. m. of the whole hour. Wherefore if 58. m. being the common difference between the *Meridians* of *Prage* and *London*, be ſubducted from 8 hor. 28 m. the remainder ſheweth the moment of the great Conjunction at *London* to be 7 ho. 22 m. by *Kepler*. But whereas my Obſervation of *Jupiter* was at 7 ho. 40 m. with me, whoſe dwelling is removed about 5 m. of time from the *Meridian* of *London* to the *Eaſt*, by my Obſervation the ſame happen 7 ho. 35 m. at *London*, which is but 13 m. later then *Kepler* aſſigneth it, whoſe Obſervation, being only by the *Quadrate* and *Azimuth* with many operations and corrections, as you may read, I hold not ſo certain as my own.

Thus

Thus then having both observed the time my self, and confirmed my Observation by *Keplers*, and by Observations of my own, both preceding and subsequent, (for that the observation of *Iupiter* the 3 of *Decemb.* and those of the 16. being examined by the diurnal Motion, will vary little or nothing from the day and time before limited,) I will now erect the Figure of the Heavens for the *Horizon* of *London* at that instant, that so you may have a foundation of further Speculations then have hitherto been thought on.



The first things therefore in this Figure, whereupon I pray you curiously cast your eye, are the Ascendent, and the M: C: the degree ascending, being the very place of the new Star, which appeared the year following 1604. in *Serpen:* the M: C: the degree of the Sun at the time of the great Eclipse the year after, 1605. The Conjunction it self you see hapned *in duodecimo loco.*

So as the places of the new Star and the Eclipses are thus celebrated with special Prerogative in respect of us. But for so much as by the doctrine of *Leovitius*, and other *Astrologers*, the ☌ of *Mars*, with these two superiour Planets, is also requisite for the just complement of a great ☌, you shall also see how the end and accomplishment thereof doth answer the beginning. I was not at leisure to observe the Planets my self the year following: but *Kepler* supplieth my want, who *pag.* 55. observed *Mars* to be joyned with *Saturn* the 16 of *Sept.* 1604. after our stile, about 8. in the Evening at *Prage*, in the 10 gr. 1 m. of ♐; and again, upon the 29 day of the same moneth an hour before Noon, he affirmeth

eth *Mars* to have paſſed by *Iupiter*, and ſo fully to abſolve this great meeting and ☌ of the three ſuperior Planets in the 19 gr. 12 m. of ♐. The degree of the Eclipſed Sun, at what time the new Star was not ſeen, as he proveth by the Teſtimony of many famous Aſtronomers, as of *Fabritius*, *Reſinus*, and others: But behold the 30 of *Sept.* (which was the very day following) in the Evening, this rare and wonderful *Phænomena* appeared juſt almoſt in the place where the great ☌ was accompliſhed, *viz.* in the 17 gr. 40 m. of ♐, the degree aſcending at *London* in the beginning of the great ☌, and now 1.½ gr. before the ending thereof: at what time alſo, if you pleaſe to conſider the place of the Sun by *Tycho*'s account, you ſhall find him an hour after Sun-ſet the 30 of *Sept.* at *London*, being 36 m. paſt 6 of the Clock at Even (when the Star certainly was firſt ſeen) to hold 17 gr. 30 m. of ♎, the place almoſt exactly of his Eclipſe the year following, and in a perfect ✶ to the new Star now firſt appearing, and the Aſcendant in the great Conjunction.

Certainly when I conſider firſt how ex-

exactly all these dependances follow one another, I cannot think that God hath observed this streight familiarity between the ♂, the new Star, and the Eclipse in vain, or that they should thus concur with the *Asc:* and M: C: of *London* at the time of the great ♂; but that as the signification is general, so questionless, in the participation of the effects, *London*, and with it *England*, is like to taste more fully thereof then other places.

Now a little to consider these Appearances by the precepts of *Astrologie*, we see all these Conjunctions celebrated in ♐, which, as it is *Signum Bicorporeum*, by *Ptolomy*, signifieth of Kings, and as it is the house of *Iupiter*, it may both be applyed to matter and persons of State and Religion. Wherefore, as we may rightly call the sign of ♐ at this time the Court or Temple of *Heaven*, where all the Planets have made their Assembly: So is it not unworthy the noting in what order they hold the same, which for certain was all one with that which the Planets themselves hold in Heaven; as *Saturn* is highest, so was his *Northern* Latitude greatest, *viz.* 1 gr. 40.m. *Iupiter*

next

next 36 m. *Sept.* alſo, and *Mars* loweſt of all, having *Meridional* Latitude 1 gr. 36 m. at his Conjunction with *Saturn* and *Jupiter*. But the new Star ſhined above them all, both in reſpect of the *Ecliptick*, and the *Diameter* of the World; which nevertheleſs is not out of order, if we reſpect the ſcituation of the *Orbs*: But herein to be admired, that as the ſame had no Motion, nor any prodigious Tayl, or Hair, (as Comets are wont,) but both in place, and form, and fixedneſs repreſented a fixed Star; ſo it may be proportionably collected, That what was decreed in this notable Synod of the Planets, was alſo ratified by the fixed Stars, and by all the Spheres of Heaven. Neither is it to be neglected, that this new Star excelled all the reſt of the Planets in Magnitude and Light: and whereas before perverſe old *Saturn* (the Preſident of Antiquity) both in reſpect of his ſcituation in his own Orb, being in *Apogæo Eccentrici et Epicycli*, and alſo in regard of his Latitude, was elevated above *Jupiter* in his own houſe: Now this new Star having Latitude, 1 gr. 53 m. 54 ſec. *Sept.* by our Obſervation is elevated above

bove *Saturn*, and therefore when *Saturn* hardly enduring to be thus over-topped, prepared againſt him, and toward the ending of *Novem.* that year thought to have encountred him; behold he was alſo fain to come under the *Lee* (as the *Sea-men* term it) of the new Star, and ſo glad to paſs away, and leave the new Star ſtill keeping poſſeſſion, and as it were maſter of the field, where it ſtill continued, till at laſt the Sun returning the year following to the place which he held in the concluſion of the great Conjunction, and the beginning of this new Star, as before is ſhewed, he there finiſhed the *Cataſtrophe* of all this ſolemn Art, with a great Eclipſe of his Light exactly in the *Mid-heaven* of the beginning of the great Conjunction of *Iupiter* and *Saturn*, and in a ✶ to the *Aſcendant* thereof, and the place of this new Star. This is the true Hiſtorical Narration.

What the meaning hereof is, I leave to thoſe that are indued with a more divine and Prophetical Inſtinct then my ſelf: Yet thus much we ſee, that he who overlooked proud *Iupiter*, and challenged Antiquity to himſelf, is here put down by

the brightneſs of this new Light. And ther, as the Sun *Metaphorically* re-reſenteth Kings and Magiſtrates, and obility in *Aſtrologie* are reſembled to he Planets about the Sun: So the fixed tars are compared to the People, and Commons, amongſt whom ſome excel thers, and therefore whether there be a ew *Democraty* or *Ariſtocraty* of the Church and Common-wealth founded hile the Sun ſuffereth his light to be ob-cured by the ☽, or whether the Goſpel often by the *Scriptures* reſembled to he Sun) ſhall ſuffer an Eclipſe, I take not pon me to decide. But this I verily elieve, as far as I can look into it with ny probable gueſs, that ſince the be-inning of this great Conjunction there ath been many Treaties of Peace over all he parts of the World, both between *us* nd the *French*, the *Lowcountry-men* nd the *Spaniard*, and alſo between the *Emperor*, *Turks* and *Hungarians*; all which are concluded, ſaving the Peace between the *Low-countries* and *Spain*: So you ſhall ſee (if I be not deceived) that Treaty will break off, and by that means the Wars be renewed, & the King

of

of *Spain* utterly beaten out of his *Indies*, and the *Gospel* propagated unto the *Southern* parts. For to what other end is this new Star Perpendicular to the *Indian* Seas, and to the best part of *America*? To what end also (though *Mars* seemeth in the Eclipse in respect of his Position, as also in the great Conjunction in respect of his Latitude directed) is he notwithstanding both in the figure of the great Conjunction elevated above all the Planets, while *Saturn* and *Jupiter* are *in pessimo loco*, and in the figure of the Eclipse, as your self materially noted, *in imperante gradu & signo*, over the place Eclipsed? Besides, you aptly note the dissembling and treacherous * of *Saturn in* 12. *loco* to the place Eclipsed, together with the hostile and exact Irradiation of *Jupiter* to the same: I speak not these things as if I pronounced them *Ab Apollinis Tripode*, but as I compare the likelihood of future accidents by the state of things present, as they have any allusion to the apparition of the heavenly bodies: All which I submit to your grave Censure.

And

And so craving pardon for my tediousnes, and not doubting your good acceptance of my good will, I commend my love unfeignedly, and rest,

Yours most assured,

April 2.
1608.

Christopher Heydon.

FINIS.